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LEVY 09/768623 Page 1
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=> D HIS L26-

L26

L35

i Tri

(FILE 'HCAPLUS' ENTERED AT 11:14:33 ON 30 AUG 2002)

FILE 'REGISTRY' ENTERED AT 11:18:29 ON 30 AUG 2002

FILE 'HCAPLUS' ENTERED AT 11:18:35 ON 30 AUG 2002 5 S SUMMER P?/AU

FILE 'STNGUIDE' ENTERED AT 11:32:39 ON 30 AUG 2002

FILE 'REGISTRY' ENTERED AT 11:37:08 ON 30 AUG 2002

E GLUTAMIC ACID/CN

L28 2 S E3

E PHOSPHORIC ACID/CN

L29 1 S E3

L30 3 S MAGNESIUM OXIDE/CN OR CALCIUM OXIDE/CN OR ALUMINUM OXIDE/CN

FILE 'HCAPLUS' ENTERED AT 11:39:27 ON 30 AUG 2002

L31 85117 S L28 OR GLUTAMIC ACID

L32 72538 S L29 OR PHOSPHORIC ACID

L33 119692 S L32 OR H3PO4

L34 537292 S L30 OR (MAGNESIUM OR ALUMINUM OR ALUMINIUM OR MAGNESIUM OR CA

27 S L31 AND L33 AND L34

L36 4 S L35 AND FEED?/SC,SX

L37 3 S L35 AND FEED?

L38 4 S L36 OR L37

FILE 'WPIX' ENTERED AT 11:49:17 ON 30 AUG 2002

L39 1 S L38

FILE 'AGRICOLA' ENTERED AT 11:50:16 ON 30 AUG 2002

L40 0 S L37

FILE 'CABA' ENTERED AT 11:50:50 ON 30 AUG 2002

L41 0 S L37

FILE 'BIOSIS' ENTERED AT 11:51:08 ON 30 AUG 2002

L42 0 S L37

FILE 'MEDLINE' ENTERED AT 11:51:55 ON 30 AUG 2002

L43 0 S L37

FILE 'STNGUIDE' ENTERED AT 11:52:09 ON 30 AUG 2002

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 11:55:19 ON 30 AUG 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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socheng in agricola Biosis Medline sor most specifie LEVY 09/768623 Page 2

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FILE COVERS 1907 - 30 Aug 2002 VOL 137 ISS 10 FILE LAST UPDATED: 29 Aug 2002 (20020829/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> [	QUE L38	
L28	2	SEA FILE=REGISTRY ABB=ON "GLUTAMIC ACID"/CN
L29	1	SEA FILE=REGISTRY ABB=ON "PHOSPHORIC ACID"/CN
L30	3	SEA FILE=REGISTRY ABB=ON MAGNESIUM OXIDE/CN OR CALCIUM
		OXIDE/CN OR ALUMINUM OXIDE/CN
L31	85117	SEA FILE=HCAPLUS ABB=ON L28 OR GLUTAMIC ACID
L32	72538	SEA FILE=HCAPLUS ABB=ON L29 OR PHOSPHORIC ACID
L33		SEA FILE=HCAPLUS ABB=ON L32 OR H3PO4
L34	537292	SEA FILE=HCAPLUS ABB=ON L30 OR (MAGNESIUM OR ALUMINUM OR
		ALUMINIUM OR MAGNESIUM OR CALCIUM) (W) OXIDE# OR MGO OR AL2O3 OR
		CAO
L35	27	SEA FILE=HCAPLUS ABB=ON L31 AND L33 AND L34
L36	4	SEA FILE=HCAPLUS ABB=ON L35 AND FEED?/SC,SX
L37	3	SEA FILE=HCAPLUS ABB=ON L35 AND FEED?
L38	4	SEA FILE=HCAPLUS ABB=ON L36 OR L37

#### => D L38 ALL 1-4 HITSTR

L38 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2002 ACS

2002:555965 HCAPLUS AN

DN 137:108652

ΤT Phosphorus-containing coating materials for flowable cottonseed applicants

ΙN Summer, Paul; Yamamoto, Koryu

PΑ Ajinomoto U.S.A., Inc., USA

U.S. Pat. Appl. Publ., 6 pp. SO

CODEN: USXXCO

DTPatent

English LA

IC ICM A23K001-18

NCL 424438000

CC 17-12 (Food and Feed Chemistry)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ΡI US 2002098226 20020725 A1 US 2001-768623 20010125

A method for the prepn. of a handleable, flowable coated cottonseed product is provided which involves coating cottonseed with a compn. of (a) water or a liq. **feed** product, (b) a sol. phosphorous source and (c) a metal compd. capable of interacting with the sol. phosphorous source to form a coating on the cottonseed, and curing the coating. The flowable cottonseed product formed is used as a feed supplement for ruminants such as cattle, as a plantable source of cottonseed, and in a method for treatment and(or) prevention of urinary calculi or prevention

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of milk fever in cattle. Thus, cottonseed (1080 lbs) is thoroughly mixed with 80 lbs of calcium carbonate to coat the cottonseed with the calcium carbonate. A soln. is then formed by combining 500 lbs of Proteferm (condensed glutamic acid fermn. solubles), 140 lbs of 75% ageuous phosphoric acid and 200 lbs of sodium bentonite. The resulting soln. is then combined with the calcium carbonate-coated cottonseed to coat the cottonseed with the Proteferm-contg. soln. The coating thus formed is allowed to cure and harden at ambient temp. to provide 2000 lbs of coated cottonseed. Batches of coated cottonseed using the same percentages of components, but on a smaller scale resulted in a final coated cottonseed product that was flowable and easily handleable with conventional grain handling equipment. cottonseed flowability coating material phosphorus Fermentation (condensed solubles; phosphorus-contg. coating materials for flowable cottonseed) Industrial liquors (corn steep liquor; phosphorus-contg. coating materials for flowable cottonseed) Yeast (distillers', paste; phosphorus-contg. coating materials for flowable cottonseed) Fungicides (mold inhibitors; phosphorus-contg. coating materials for flowable cottonseed) Paralvsis (parturient, prevention of; phosphorus-contg. coating materials for flowable cottonseed) Alkali metal compounds Alkaline earth compounds RL: FFD (Food or feed use); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses) (phosphates and phosphonates; phosphorus-contg. coating materials for flowable cottonseed) Calculi, urinary Coating materials Cottonseed Feed Molasses Whey (phosphorus-contg. coating materials for flowable cottonseed) Amino acids, biological studies Enzymes, biological studies Mineral elements, biological studies Vitamins RL: FFD (Food or feed use); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses) (phosphorus-contg. coating materials for flowable cottonseed) Intestinal bacteria (probiotic, direct fed microbials; phosphorus-contq. coating materials for flowable cottonseed) Distillery slops (solubles yeast paste; phosphorus-contg. coating materials for flowable cottonseed) Cattle (urinary calculi prevention in; phosphorus-contg. coating materials for flowable cottonseed) Sorbents (water; phosphorus-contg. coating materials for flowable cottonseed)

7723-14-0, Phosphorus, biological studies

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LEVY 09/768623 Page 4

RL: FFD (Food or f
(Biological study)
```

RL: FFD (Food or feed use); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)

(coating materials for flowable cottonseed)

IT 56-86-0, Glutamic acid, biological studies
RL: FFD (Food or feed use); NUU (Other use, unclassified); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(fermn. solubles; phosphorus-contg. coating materials for f)

(fermn. solubles; phosphorus-contg. coating materials for flowable cottonseed)

IT 62-54-4, Calcium acetate 471-34-1, Calcium carbonate, biological studies 1305-62-0, Calcium hydroxide, biological studies 1305-78-8, Calcium oxide, biological studies 1309-42-8, Magnesium hydroxide 1309-48-4, Magnesium oxide, biological studies 1344-28-1, Aluminum oxide

, biological studies 4075-81-4, Calcium propionate 7429-90-5, Aluminum, biological studies 7439-95-4, Magnesium, biological studies 7440-70-2, Calcium, biological studies 7487-88-9, Magnesium sulfate, biological studies 7664-38-2, Phosphoric acid

, biological studies 7722-76-1, Monoammonium phosphate 7778-18-9, Calcium sulfate 7783-28-0, Diammonium phosphate 7786-30-3, Magnesium chloride, biological studies 10043-52-4, Calcium chloride, biological studies 13598-36-2, Phosphorous acid, biological studies 14265-44-2, Phosphate, biological studies

RL: FFD (Food or feed use); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)

(phosphorus-contg. coating materials for flowable cottonseed)

IT 443648-21-3, Proteferm

RL: FFD (Food or feed use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (phosphorus-contg. coating materials for flowable cottonseed)

IT 56-86-0, Glutamic acid, biological studies
RL: FFD (Food or feed use); NUU (Other use, unclassified); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (fermn. solubles; phosphorus-contg. coating materials for flowable cottonseed)

RN 56-86-0 HCAPLUS

CN L-Glutamic acid (9CI) (CA INDEX NAME)

Absolute stereochemistry.

NH2 HO<sub>2</sub>C S CO<sub>2</sub>H

Ca = 0

RN 1309-48-4 HCAPLUS

```
Magnesium oxide (MgO) (9CI) (CA INDEX NAME)
CN
Mq = 0
     1344-28-1 HCAPLUS
RN
CN
     Aluminum oxide (Al2O3) (8CI, 9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     7664-38-2 HCAPLUS
RN
     Phosphoric acid (7CI, 8CI, 9CI) (CA INDEX NAME)
CN
   0
HO-P-OH
   OH
     ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2002 ACS
AN
     2001:338295 HCAPLUS
DN
     134:325508
ΤI
     Compositions and methods for calcium fortification of dairy products and
     oleaginous foods
     Christensen, Earl C.; Ashmead, Stephen D.; Ericson, Clayton Albion International, Inc., USA
IN
PA
SO
     PCT Int. Appl., 32 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
IC
     ICM A23L001-304
     ICS A23L001-305
     17-6 (Food and Feed Chemistry)
CC
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                            APPLICATION NO.
                                                              DATE
                                            _____
                             20010510
                                            WO 2000-US30182 20001101
PΙ
     WO 2001032037
                      A1
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,
             ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6294207
                             20010925
                                            US 1999-431387
                       В1
                                                              19991101
     US 6299914
                                            US 1999-430926
                             20011009
                                                              19991101
                        В1
                                                              20001101
                                            BR 2000-15182
     BR 2000015182
                             20020716
                       Α
PRAI US 1999-430926
                             19991101
                       Α
     US 1999-431387
                       Α
                             19991101
     WO 2000-US30182
                       W
                             20001101
ΆB
     Calcium amino acid chelate complexes for fortification of dairy products
```

and oleaginous foods, dairy products and oleaginous foods fortified with calcium amino acid chelate complexes, and methods of prepg. calcium amino acid chelate complexes are disclosed and described. Addnl., calcium amino acid malic acid chelate complexes for fortification of oleaginous foods

LEVY 09/768623 Page 5

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are also disclosed. The calcium amino acid chelate complexes and calcium amino acid malic acid chelate complexes of the present invention are stable, palatable, and bioavailable. The calcium amino acid chelate complexes are prepd. by reacting a calcium compd., an amino acid ligand, a pH adjuster, and, optionally, a stabilizing/suspending agent in an aq. environment. The calcium amino acid malic acid chelate complexes are prepd. by reacting a calcium source, an amino acid ligand, and malic\_acid\_\_ in an aq. environment. dairy product calcium amino acid chelate supplement Monoglycerides RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (citric acid esters; compns. and methods for calcium fortification of dairy products and oleaginous foods) Butter Cheese Cream Dairy products Emulsifying agents Ice cream Margarine Milk Milk preparations (compns. and methods for calcium fortification of dairy products and oleaginous foods) Diglycerides Fats and Glyceridic oils, biological studies Lard Lecithins Monoglycerides RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (compns. and methods for calcium fortification of dairy products and oleaginous foods) Amino acids, reactions RL: RCT (Reactant); RACT (Reactant or reagent) (compns. and methods for calcium fortification of dairy products and oleaginous foods) Dipeptides RL: RCT (Reactant); RACT (Reactant or reagent) (compns. and methods for calcium fortification of dairy products and oleaginous foods) Tripeptides RL: RCT (Reactant); RACT (Reactant or reagent) (compns. and methods for calcium fortification of dairy products and oleaginous foods) Food (fatty; compns. and methods for calcium fortification of dairy products and oleaginous foods)

IT

IT

IT Hydrocolloids

> (gums; compns. and methods for calcium fortification of dairy products and oleaginous foods)

IT Ice cream

(low-calorie; compns. and methods for calcium fortification of dairy products and oleaginous foods)

ΙT Food

> (oleaginous; compns. and methods for calcium fortification of dairy products and oleaginous foods)

IT

(process; compns. and methods for calcium fortification of dairy products and oleaginous foods)

IT Cream

```
(sour; compns. and methods for calcium fortification of dairy products
        and oleaginous foods)
IT
        (spreads; compns. and methods for calcium fortification of dairy
        products and oleaginous foods)
     Peptides, reactions
ΙT
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (tetrapeptides; compns. and methods for calcium fortification of dairy
        products and oleaginous foods)
IT
     Frozen foods
     Milk preparations
        (yogurt; compns. and methods for calcium fortification of dairy
        products and oleaginous foods)
     50-21-5, Lactic acid, biological studies 64-19-7, Acetic acid, biological studies 77-92-9, Citric acid, biological studies 6915-15-7,
ΙT
     Malic acid 7440-70-2, Calcium, biological studies 7664-38-2,
     Phosphoric acid, biological studies 9000-01-5, Gum
              9000-07-1, Carrageenan 9000-30-0, Guar gum 9050-04-8, Calcium
                   25383-99-7, Sodium stearoyl lactylate
     CM-cellulose
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (compns. and methods for calcium fortification of dairy products and
        oleaginous foods)
     7440-70-2D, Calcium, compds. and amino acid chelates, biological studies
ΙT
     RL: FFD (Food or feed use); RCT (Reactant); BIOL (Biological study); RACT
     (Reactant or reagent); USES (Uses)
        (compns. and methods for calcium fortification of dairy products and
        oleaginous foods)
TΤ
     51-35-4, Hydroxyproline
                               52-90-4, L-Cysteine, reactions 56-40-6,
     Glycine, reactions 56-41-7, L-Alanine, reactions 56-45-1, L-Serine,
     reactions 56-84-8, L-Aspartic acid, reactions 56-85-9, L-Glutamine,
     reactions 56-86-0, L-Glutamic acid,
                 56-87-1, L-Lysine, reactions
     reactions
                                                56-89-3, Cystine, reactions
     60-18-4, L-Tyrosine, reactions 61-90-5, L-Leucine, reactions
     L-Methionine, reactions 63-91-2, L-Phenylalanine, reactions
                  70-47-3, L-Asparagine, reactions 71-00-1, L-Histidine,
     L-Ornithine
               72-18-4, L-Valine, reactions 72-19-5, L-Threonine, reactions
     reactions
     73-22-3, L-Tryptophan, reactions 73-32-5, L-Isoleucine, reactions
     74-79-3, L-Arginine, reactions 147-85-3, L-Proline, reactions
     471-34-1, Calcium carbonate, reactions 1305-78-8,
     Calcium oxide, reactions 10043-52-4, Calcium chloride,
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (compns. and methods for calcium fortification of dairy products and
        oleaginous foods)
RE.CNT
              THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Hsu; US 5504055 A 1996 HCAPLUS
(2) Mulchandani; US 5700513 A 1997 HCAPLUS
(3) Pedersen; US 5516925 A 1996 HCAPLUS
(4) Serfontein; UK 2299992 A 1996
(5) Turk; WO 9814173 A 1998 HCAPLUS
     7664-38-2, Phosphoric acid, biological studies
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (compns. and methods for calcium fortification of dairy products and
        oleaginous foods)
RN
     7664-38-2 HCAPLUS
```

Phosphoric acid (7CI, 8CI, 9CI) (CA INDEX NAME)

CN

56-86-0, L-Glutamic acid, reactions
1305-78-8, Calcium oxide, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)

(compns. and methods for calcium fortification of dairy products and oleaginous foods)- - -

56-86-0 HCAPLUS RN

L-Glutamic acid (9CI) CN(CA INDEX NAME)

Absolute stereochemistry.

RN 1305-78-8 HCAPLUS

Calcium oxide (CaO) (9CI) (CA INDEX NAME)

Ca = 0

L38 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2002 ACS

1999:579493 HCAPLUS

DN 131:184262

ΤI Ruminant feed additive composition and process for producing the

Takemoto, Tadashi; Kitamura, Nobuyoshi; Kato, Toshihisa; Oshimura, ΙN Masahiko; Mori, Ken-ichi

PAAjinomoto Co., Inc., Japan

Eur. Pat. Appl., 25 pp. SO

CODEN: EPXXDW

DT Patent

English LA

IC ICM A23K001-00

ICS A23K001-16; A23K001-18

17-12 (Food and Feed Chemistry)

Section cross-reference(s): 18 FAN CNT 1

L'MM'	-IN I	T																
	PATENT NO.			KI	ND	DATE			AP	PLIC	ATI	ои ис	Э.	DATE				
ΡI	EP 940088 EP 940088		A:	2	19990908			EP 1999-301606				6	19990303					
				A.	3	1999	1215											
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB, (	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI,	RO										
	JΡ	1124	3871		A.	2	1999	0914		JP	199	8-5	1968		1998	0304		
	JΡ	1134	6670		A.	2	1999	1221		JP	199	8-1	5560	5	1998	0604		
	JΡ	2000	06044	40	A.	2	2000	0229		JP	199	8-2	3307	5	1998	0819		
	US	6238	727		B	1	2001	0529		US	199	9-2	6122	6	1999	0303		
PRAT	.TP	1998	-5196	68	Δ		1998	0304										

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JP 1998-155605
                       Α
                             19980604
     JP 1998-233075
                       Α
                             19980819
AΒ
     Disclosed herein are a ruminant feed additive compn. contq. (a)
     lysine magnesium phosphate, (b) magnesium oxide, (c) a
     binder and (d) water, said water content being between 5 and 15% by wt.,
     and a process for producing the same. In such ruminant feed additive compn. the physiol. active substance is fully protected in the
     rumen and rapidly dissolved in the abomasum, and which can easily be
     granulated by an extrusion-granulating method and the like. Disclosed
     herein is also a process for producing a ruminant feed additive
     compn., which comprises mixing the ingredients and extrusion granulation,
     optionally coating the resulting granules with a rumen-protective
ST
     ruminant feed additive lysine magnesium
ΙT
     Stomach content, ruminant
        (abomasal, model; ruminant feed additive compn. and process
        for producing the same)
ΙT
     Biological transport
        (extrusion, granulation; ruminant feed additive compn. and
        process for producing the same)
IT
     Granulation
        (extrusion-; ruminant feed additive compn. and process for
        producing the same)
IT
     Coating process
        (extrusion; ruminant feed additive compn. and process for
        producing the same)
IT
     Temperature effects, biological
        (heat; ruminant feed additive compn. and process for
        producing the same)
IT
     Soybean oil
     RL: AGR (Agricultural use); FFD (Food or feed use); BIOL (Biological
     study); USES (Uses)
        (hydrogenated; ruminant feed additive compn. and process for
        producing the same)
IT
     Tallow
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (hydrogenated; ruminant feed additive compn. and process for
        producing the same)
ΙT
     Stomach content, ruminant
        (model; ruminant feed additive compn. and process for
        producing the same)
IT
     Binders
     Cattle
     Coating materials
     Drying
       Feed additives
     Pressure
     Ruminant
     Steam
        (ruminant feed additive compn. and process for producing the
IT
     Amino acids, biological studies
     Carnauba wax
     Lecithins
     Palm oil
     RL: AGR (Agricultural use); FFD (Food or feed use); BIOL (Biological
     study); USES (Uses)
        (ruminant feed additive compn. and process for producing the
ΙT
     56-41-7, L-Alanine, biological studies 56-86-0, L-
```

LEVY 09/768623 Page 9

```
Glutamic acid, biological studies
                                        56-87-1D, L-Lysine,
     composite hydrate salt crystals with phosphoric acid
     and magnesium, biological studies
                                        57-11-4, Octadecanoic acid, biological
               59-51-8, Methionine 1309-48-4, Magnesium
     studies
     oxide, biological studies
                                 7439-95-4D, Magnesium, composite
     hydrate salt crystals with magnesium and lysine, biological studies
     7439-95-4D, Magnesium, composite hydrate salt crystals with
     phosphoric acid and lysine, biological studies
     7631-86-9, Silica, biological studies
                                              9004-32-4, Sodium CM-cellulose
     9004-57-3, Ethyl cellulose 10098-89-2, Lysine hydrochloride
     14807-96-6, Talc, biological studies
     RL: AGR (Agricultural use); FFD (Food or feed use); BIOL (Biological
     study); USES (Uses)
        (ruminant feed additive compn. and process for producing the
        same)
     56-86-0, L-Glutamic acid, biological studies
IT
     1309-48-4, Magnesium oxide, biological studies
     RL: AGR (Agricultural use); FFD (Food or feed use); BIOL (Biological
     study); USES (Uses)
        (ruminant feed additive compn. and process for producing the
        same)
RN
     56-86-0
             HCAPLUS
     L-Glutamic acid (9CI)
CN
                           (CA INDEX NAME)
Absolute stereochemistry.
            NH2
               CO<sub>2</sub>H
HO<sub>2</sub>C
RN
     1309-48-4 HCAPLUS
CN
     Magnesium oxide (MgO) (9CI) (CA INDEX NAME)
Mg = 0
     ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2002 ACS
L38
     1991:80324 HCAPLUS
ΑN
     114:80324
DN
     High-purity amino acid concentrates for foods, feeds or
TΙ
     pharmaceuticals manufactured by hydrolysis of animal protein wastes
ΙN
     Colon Auria, Jose Cristobal
     Proalan S. A., Spain
PA
     Span., 5 pp.
SO
     CODEN: SPXXAD
DT
     Patent
     Spanish
T.A
IC
     ICM C08H001-00
     17-13 (Food and Feed Chemistry)
     Section cross-reference(s): 63
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                            APPLICATION NO.
PΙ
     ES 2008625
                       Α6
                            19890716
                                            ES 1988-3034
     Sol. high-purity amino acid concs., usable in foods, feeds or
     pharmaceuticals are manufd. by hydrolysis of protein animal wastes, such
```

as feathers. The wastes are hydrolyzed with HCl, H2SO4 or H3PO4 , followed by neutralization to pH >3 with Na2CO3, CaCO3 or CaO, filtration, purifn. of the filtrate with activated C and/or ion-exchange resins, concn. in vacuum, sterilization, and spray drying.

ST amino acid protein hydrolysis acid

ΙT Feed

Food

Pharmaceuticals

(amino acid concs. for, from hydrolysis of animal wastes)

IT Feather

(amino acid concs. prepd. by hydrolysis of)

Amino acids, preparation

RL: PREP (Preparation)

(concs., from hydrolysis of animal wastes)

IT Wastes

(animal, amino acid concs. by hydrolysis of)

IT 52-90-4, Cysteine, uses and miscellaneous 56-40-6, Glycine, uses and 56-41-7, Alanine, uses and miscellaneous 56-45-1, miscellaneous Serine, uses and miscellaneous 56-84-8, Aspartic acid, uses and miscellaneous 56-86-0, Glutamic acid, uses and miscellaneous 56-87-1, Lysine, uses and miscellaneous Tyrosine, uses and miscellaneous 61-90-5, Leucine, uses and miscellaneous 63-68-3, Methionine, uses and miscellaneous 63 - 91 - 2, Phenylalanine, uses and miscellaneous 71-00-1, Histidine, uses and miscellaneous 72-18-4, Valine, uses and miscellaneous 72-19-5, Threonine, uses and miscellaneous 73-22-3, Tryptophan, uses and 73-32-5, Isoleucine, uses and miscellaneous miscellaneous Arginine, uses and miscellaneous 147-85-3, Proline, uses and miscellaneous

RL: USES (Uses)

(amino acid concs. contg., from hydrolysis of animal wastes)

TT 56-86-0, Glutamic acid, uses and miscellaneous

RL: USES (Uses)

(amino acid concs. contg., from hydrolysis of animal wastes)

RN 56-86-0 HCAPLUS

L-Glutamic acid (9CI) (CA INDEX NAME) CN

Absolute stereochemistry.

NH2

=> FILE WPIX

FILE 'WPIX' ENTERED AT 11:55:53 ON 30 AUG 2002 COPYRIGHT (C) 2002 THOMSON DERWENT

FILE LAST UPDATED: 29 AUG 2002 <20020829/UP> MOST RECENT DERWENT UPDATE 200255 <200255/DW> DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> SLART (Simultaneous Left and Right Truncation) is now available in the /ABEX field. An additional search field /BIX is also provided which comprises both /BI and /ABEX <<<

>>> The BATCH option for structure searches has been

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enabled in WPINDEX/WPIDS and WPIX <<<

- >>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<
- >>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,
  SEE http://www.derwent.com/dwpi/updates/dwpicov/index.html <<<
- >>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:

http://www.stn-international.de/training center/patents/stn guide.pdf <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER GUIDES, PLEASE VISIT:

http://www.derwent.com/userguides/dwpi guide.html <<<

```
=> D QUE L39
                2 SEA FILE=REGISTRY ABB=ON "GLUTAMIC ACID"/CN
L28
                1 SEA FILE=REGISTRY ABB=ON "PHOSPHORIC ACID"/CN
L29
                3 SEA FILE=REGISTRY ABB=ON MAGNESIUM OXIDE/CN OR CALCIUM
L30
                  OXIDE/CN OR ALUMINUM OXIDE/CN
           85117 SEA FILE=HCAPLUS ABB=ON L28 OR GLUTAMIC ACID
L31
          72538 SEA FILE=HCAPLUS ABB=ON L29 OR PHOSPHORIC ACID
119692 SEA FILE=HCAPLUS ABB=ON L32 OR H3PO4
537292 SEA FILE=HCAPLUS ABB=ON L30 OR (MAGNESIUM OR ALUMINUM OR
L32
L33
L34
                  ALUMINIUM OR MAGNESIUM OR CALCIUM) (W) OXIDE# OR MGO OR AL2O3 OR
                  CAO
               27 SEA FILE=HCAPLUS ABB=ON L31 AND L33 AND L34
L35
                4 SEA FILE=HCAPLUS ABB=ON L35 AND FEED?/SC,SX
L36
                3 SEA FILE=HCAPLUS ABB=ON L35 AND FEED?
L37
                1 SEA FILE=WPIX ABB=ON L36 OR L37
L39
```

#### => D L39 ALL

```
L39 ANSWER 1 OF 1 WPIX (C) 2002 THOMSON DERWENT AN 2001-566014 [64] WPIX
```

DNC C2001-168060

TI Process for clarifying fermented gourmet powder liquid.

DC D13 D16

IN ZHAO, Y

PA (UYNA-N) UNIV NANJING

CYC 1

PI CN 1302558 A 20010711 (200164)\*

ADT CN 1302558 A CN 2001-108019 20010105

PRAI CN 2001-108019 20010105

IC ICM A23L001-228 ICS A23L001-277

AB CN 1302558 A UPAB: 20011105

NOVELTY - A method for clarifying the gourmet powder fermented fluid includes the following steps, A) adding a certain quantity of Ca(OH)2 or CaO into the gourmet powder fermented fluid to agitate them to be dissolved fully in the fluid; B) adding H3PO4 by dripping while agitating the fluid; C) after a short time of stagnation, filtering it to obtain the charified fermented fluid which has a transparence of is greater than or equal to 300 mm, washing the filter cake to get the filter cake as a feed protein and the washing water containing the glutamic acid to be returned to the process.

A23L001-228

Dwg.0/0

FS CPI

FA AB

LEVY 09/768623 Page 13

MC CPI: D03-G; D05-A

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 12:26:52 ON 30 AUG 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 30 Aug 2002 VOL 137 ISS 10 FILE LAST UPDATED: 29 Aug 2002 (20020829/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> D OUE	тоα	
L28		SEA FILE=REGISTRY ABB=ON "GLUTAMIC ACID"/CN
		SEA FILE=REGISTRY ABB=ON "PHOSPHORIC ACID"/CN
L30		SEA FILE=REGISTRY ABB=ON MAGNESIUM OXIDE/CN OR CALCIUM
ПЭО	J	OXIDE/CN OR ALUMINUM OXIDE/CN
L31	05117	SEA FILE=HCAPLUS ABB=ON L28 OR GLUTAMIC ACID
		SEA FILE=HCAPLUS ABB=ON L29 OR PHOSPHORIC ACID
		SEA FILE=HCAPLUS ABB=ON L32 OR H3PO4
L34	53/292	SEA FILE=HCAPLUS ABB=ON L30 OR (MAGNESIUM OR ALUMINUM OR
		ALUMINIUM OR MAGNESIUM OR CALCIUM) (W) OXIDE# OR MGO OR AL203 OR
T 0 F	0.7	CAO
L35		SEA FILE=HCAPLUS ABB=ON L31 AND L33 AND L34
		SEA FILE=HCAPLUS ABB=ON L35 AND FEED?/SC,SX
L37		SEA FILE=HCAPLUS ABB=ON L35 AND FEED?
L38	_	SEA FILE=HCAPLUS ABB=ON L36 OR L37
L44	123369	SEA FILE=HCAPLUS ABB=ON L31 OR CORN?(3A)LIQ? OR (YEAST? OR
		FERMENT) (3A) SOLUB? OR WHEY OR MOLASSES
L45		SEA FILE=REGISTRY ABB=ON 13598-36-2/RN
L46	5066	SEA FILE=HCAPLUS ABB=ON L45
L47		SEA FILE=REGISTRY ABB=ON 7783-28-0/RN
L48	4804	SEA FILE=HCAPLUS ABB=ON L47
L49	1	SEA FILE=REGISTRY ABB=ON 7722-76-1/RN
L50	5120	SEA FILE=HCAPLUS ABB=ON L49
L51	564073	SEA FILE=HCAPLUS ABB=ON L32 OR L50 OR L48 OR L46 OR PHOSPHORUS
		ACID OR PHOSPHATE? OR PHOSPHONATE?
L52	722452	SEA FILE=HCAPLUS ABB=ON L34 OR CACL OR CACO3 OR CASO4 OR
		"CA(OH)2" OR MGCL OR MG2SO4 OR MFOH OR (CALCIUM OR MAGNESIUM)(W
		) (CHLORIDE OR SULFATE OR SULPHATE OR ACETATE OR PROPIONATE OR
		CARBONATE OR HYDROXIDE)
		$\cdot$

```
L53
          769665 SEA FILE=HCAPLUS ABB=ON L52 OR MGCL2 OR MGSO4 OR "MG(OH)2"
L64
                1 SEA FILE=REGISTRY ABB=ON 10043-52-4/RN
L65
           28671 SEA FILE=HCAPLUS ABB=ON L64
L66
                1 SEA FILE=REGISTRY ABB=ON 7786-30-3/RN
L67
           21464 SEA FILE=HCAPLUS ABB=ON L66
L68
                1 SEA FILE=REGISTRY ABB=ON 7778-18-9/RN
L69
           10527 SEA FILE=HCAPLUS ABB=ON L68
L70
                1 SEA FILE=REGISTRY ABB=ON 7487-88-9/RN
L71
           11608 SEA FILE=HCAPLUS ABB=ON L70
L72
                1 SEA FILE=REGISTRY ABB=ON 4075-81-4/RN
L73
              481 SEA FILE=HCAPLUS ABB=ON L72
L74
                1 SEA FILE=REGISTRY ABB=ON 1309-42-8/RN
L75
           10457 SEA FILE=HCAPLUS ABB=ON L74
L76
                1 SEA FILE=REGISTRY ABB=ON 1305-62-0/RN
           20976 SEA FILE=HCAPLUS ABB=ON L76
L77
L78
                1 SEA FILE=REGISTRY ABB=ON 471-34-1/RN
           46750 SEA FILE=HCAPLUS ABB=ON L78
L79
L80
                1 SEA FILE=REGISTRY ABB=ON 62-54-4/RN
          2709 SEA FILE=HCAPLUS ABB=ON L80
783131 SEA FILE=HCAPLUS ABB=ON L53 OR L81 OR L79 OR L77 OR L75 OR
L81
L82
                   L73 OR L71 OR L69 OR L67 OR L65
              837 SEA FILE=HCAPLUS ABB=ON L44 AND L51 AND L82
218 SEA FILE=HCAPLUS ABB=ON L83 AND FEED?/SC,SX,AB,BI
8 SEA FILE=HCAPLUS ABB=ON L84 AND (COTTONSEED# OR COTTON SEED#)
L83
L84
L85
L86
               14 SEA FILE=HCAPLUS ABB=ON L84 AND SEED#
                3 SEA FILE=HCAPLUS ABB=ON L83 AND (CALCULI OR CALCULUS OR MILK
L87
                   FEVER)
               22 SEA FILE=HCAPLUS ABB=ON (L85 OR L86 OR L87)
21 SEA FILE=HCAPLUS ABB=ON L88 NOT L38
L88
L89
```

=> FILE WPIX

FILE 'WPIX' ENTERED AT 12:27:07 ON 30 AUG 2002 COPYRIGHT (C) 2002 THOMSON DERWENT

FILE LAST UPDATED: 29 AUG 2002 <20020829/UP>
MOST RECENT DERWENT UPDATE 200255 <200255/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

- >>> SLART (Simultaneous Left and Right Truncation) is now
   available in the /ABEX field. An additional search field
   /BIX is also provided which comprises both /BI and /ABEX <<</pre>
- >>> The BATCH option for structure searches has been
  enabled in WPINDEX/WPIDS and WPIX <<<</pre>
- >>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<
- >>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://www.derwent.com/dwpi/updates/dwpicov/index.html <<<
- >>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
  PLEASE VISIT:
- http://www.stn-international.de/training\_center/patents/stn\_guide.pdf <<<
- >>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER GUIDES, PLEASE VISIT: http://www.derwent.com/userguides/dwpi guide.html <<<

```
=> D QUE L91
L28
              2 SEA FILE=REGISTRY ABB=ON
                                          "GLUTAMIC ACID"/CN
L29
              1 SEA FILE=REGISTRY ABB=ON
                                           "PHOSPHORIC ACID"/CN
L30
              3 SEA FILE=REGISTRY ABB=ON MAGNESIUM OXIDE/CN OR CALCIUM
                OXIDE/CN OR ALUMINUM OXIDE/CN
L31
          85117 SEA FILE=HCAPLUS ABB=ON L28 OR GLUTAMIC ACID
L32
          72538 SEA FILE=HCAPLUS ABB=ON
                                         L29 OR PHOSPHORIC ACID
L33
         119692 SEA FILE=HCAPLUS ABB=ON
                                         L32 OR H3PO4
L34
         537292 SEA FILE=HCAPLUS ABB=ON L30 OR (MAGNESIUM OR ALUMINUM OR
                ALUMINIUM OR MAGNESIUM OR CALCIUM) (W) OXIDE# OR MGO OR AL203 OR
             27 SEA FILE=HCAPLUS ABB=ON L31 AND L33 AND L34
L35
              4 SEA FILE=HCAPLUS ABB=ON L35 AND FEED?/SC,SX 3 SEA FILE=HCAPLUS ABB=ON L35 AND FEED?
L36
L37
L39
              1 SEA FILE=WPIX ABB=ON L36 OR L37
         123369 SEA FILE=HCAPLUS ABB=ON L31 OR CORN?(3A)LIQ? OR (YEAST? OR
L44
                FERMENT) (3A) SOLUB? OR WHEY OR MOLASSES
L45
              1 SEA FILE=REGISTRY ABB=ON 13598-36-2/RN
L46
           5066 SEA FILE=HCAPLUS ABB=ON L45
L47
              1 SEA FILE=REGISTRY ABB=ON 7783-28-0/RN
L48
           4804 SEA FILE=HCAPLUS ABB=ON L47
L49
              1 SEA FILE=REGISTRY ABB=ON 7722-76-1/RN
L50
           5120 SEA FILE=HCAPLUS ABB=ON L49
         564073 SEA FILE=HCAPLUS ABB=ON L32 OR L50 OR L48 OR L46 OR PHOSPHORUS
L51
                 ACID OR PHOSPHATE? OR PHOSPHONATE?
         722452 SEA FILE=HCAPLUS ABB=ON L34 OR CACL OR CACO3 OR CASO4 OR
L52
                "CA(OH)2" OR MGCL OR MG2SO4 OR MFOH OR (CALCIUM OR MAGNESIUM)-(W-
                )(CHLORIDE OR SULFATE OR SULPHATE OR ACETATE OR PROPIONATE OR
                CARBONATE OR HYDROXIDE)
L53
         769665 SEA FILE=HCAPLUS ABB=ON L52 OR MGCL2 OR MGSO4 OR "MG(OH)2"
              1 SEA FILE=REGISTRY ABB=ON 10043-52-4/RN
L64
L65
          28671 SEA FILE=HCAPLUS ABB=ON L64
L66
              1 SEA FILE=REGISTRY ABB=ON 7786-30-3/RN
L67
          21464 SEA FILE=HCAPLUS ABB=ON L66
              1 SEA FILE=REGISTRY ABB=ON 7778-18-9/RN
L68
          10527 SEA FILE=HCAPLUS ABB=ON L68
L69
L70
              1 SEA FILE=REGISTRY ABB=ON 7487-88-9/RN
L71
          11608 SEA FILE=HCAPLUS ABB=ON L70
L72
              1 SEA FILE=REGISTRY ABB=ON 4075-81-4/RN
L73
            481 SEA FILE=HCAPLUS ABB=ON L72
L74
              1 SEA FILE=REGISTRY ABB=ON 1309-42-8/RN
L75
          10457 SEA FILE=HCAPLUS ABB=ON L74
L76
              1 SEA FILE=REGISTRY ABB=ON 1305-62-0/RN
L77
          20976 SEA FILE=HCAPLUS ABB=ON L76
L78
              1 SEA FILE=REGISTRY ABB=ON 471-34-1/RN
L79
          46750 SEA FILE=HCAPLUS ABB=ON L78
L80
              1 SEA FILE=REGISTRY ABB=ON 62-54-4/RN
L81
           2709 SEA FILE=HCAPLUS ABB=ON L80
L82
         783131 SEA FILE=HCAPLUS ABB=ON L53 OR L81 OR L79 OR L77 OR L75 OR
                L73 OR L71 OR L69 OR L67 OR L65
            837 SEA FILE=HCAPLUS ABB=ON L44 AND L51 AND L82
L83
L84
            218 SEA FILE=HCAPLUS ABB=ON L83 AND FEED?/SC,SX,AB,BI
L85
              8 SEA FILE=HCAPLUS ABB=ON L84 AND (COTTONSEED# OR COTTON SEED#)
T.86
             14 SEA FILE=HCAPLUS ABB=ON L84 AND SEED#
              3 SEA FILE=HCAPLUS ABB=ON L83 AND (CALCULI OR CALCULUS OR MILK
L87
L90
              8 SEA FILE=WPIX ABB=ON
                                      (L85 OR L86 OR L87)
L91
              8 SEA FILE=WPIX ABB=ON L90 NOT L39
```

# => FILE AGRICOLA FILE 'AGRICOLA' ENTERED AT 12:27:19 ON 30 AUG 2002

FILE COVERS 1970 TO 11 Jul 2002 (20020711/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D (	QUE L92	
L28	2	SEA FILE=REGISTRY ABB=ON "GLUTAMIC ACID"/CN
L29	1	SEA FILE=REGISTRY ABB=ON "PHOSPHORIC ACID"/CN
L30	3	SEA FILE=REGISTRY ABB=ON MAGNESIUM OXIDE/CN OR CALCIUM
		OXIDE/CN OR ALUMINUM OXIDE/CN
L31	85117	SEA FILE=HCAPLUS ABB=ON L28 OR GLUTAMIC ACID
L32	72538	SEA FILE=HCAPLUS ABB=ON L29 OR PHOSPHORIC ACID
L34	537292	SEA FILE=HCAPLUS ABB=ON L30 OR (MAGNESIUM OR ALUMINUM OR
		ALUMINIUM OR MAGNESIUM OR CALCIUM) (W) OXIDE# OR MGO OR AL203 OR
		CAO
L44	123369	SEA FILE=HCAPLUS ABB=ON L31 OR CORN?(3A)LIQ? OR (YEAST? OR
		FERMENT) (3A) SOLUB? OR WHEY OR MOLASSES
L45	1	SEA FILE=REGISTRY ABB=ON 13598-36-2/RN
L46		SEA FILE=HCAPLUS ABB=ON L45
L47		SEA FILE=REGISTRY ABB=ON 7783-28-0/RN
L48		SEA FILE=HCAPLUS ABB=ON L47
L49		SEA FILE=REGISTRY ABB=ON 7722-76-1/RN
L50		SEA FILE=HCAPLUS ABB=ON L49
L51	564073	SEA FILE=HCAPLUS ABB=ON L32 OR L50 OR L48 OR L46 OR PHOSPHORUS
		ACID OR PHOSPHATE? OR PHOSPHONATE?
L52	722452	SEA FILE=HCAPLUS ABB=ON L34 OR CACL OR CACO3 OR CASO4 OR
		"CA(OH)2" OR MGCL OR MG2SO4 OR MFOH OR (CALCIUM OR MAGNESIUM)(W
		) (CHLORIDE OR SULFATE OR SULPHATE OR ACETATE OR PROPIONATE OR
	360665	CARBONATE OR HYDROXIDE)
L53		SEA FILE=HCAPLUS ABB=ON L52 OR MGCL2 OR MGSO4 OR "MG(OH)2"
L64		SEA FILE=REGISTRY ABB=ON 10043-52-4/RN
L65		SEA FILE=HCAPLUS ABB=ON L64
L66		SEA FILE=REGISTRY ABB=ON 7786-30-3/RN
L67		SEA FILE=HCAPLUS ABB=ON L66
L68 L69		SEA FILE=REGISTRY ABB=ON 7778-18-9/RN SEA FILE=HCAPLUS ABB=ON L68
L70		SEA FILE=REGISTRY ABB=ON 7487-88-9/RN
L71		SEA FILE=HCAPLUS ABB=ON L70
L72		SEA FILE=REGISTRY ABB=ON 4075-81-4/RN
L73		SEA FILE=HCAPLUS ABB=ON L72
L74		SEA FILE=REGISTRY ABB=ON 1309-42-8/RN
L75		SEA FILE=HCAPLUS ABB=ON L74
L76		SEA FILE=REGISTRY ABB=ON 1305-62-0/RN
L77		SEA FILE=HCAPLUS ABB=ON L76
L78		SEA FILE=REGISTRY ABB=ON 471-34-1/RN
L79	_	SEA FILE=HCAPLUS ABB=ON L78
L80		SEA FILE=REGISTRY ABB=ON 62-54-4/RN
L81		SEA FILE=HCAPLUS ABB=ON L80
L82		SEA FILE=HCAPLUS ABB=ON L53 OR L81 OR L79 OR L77 OR L75 OR
		L73 OR L71 OR L69 OR L67 OR L65

```
LEVY 09/768623 Page 17

L83 837 SEA FILE=HCAPLUS ABB=ON L44 AND L51 AND L82
L84 218 SEA FILE=HCAPLUS ABB=ON L83 AND FEED?/SC,SX,AB,BI
L85 8 SEA FILE=HCAPLUS ABB=ON L84 AND (COTTONSEED# OR COTTON SEED#)

L86 14 SEA FILE=HCAPLUS ABB=ON L84 AND SEED#
L87 3 SEA FILE=HCAPLUS ABB=ON L83 AND (CALCULI OR CALCULUS OR MILK FEVER)
L92 0 SEA FILE=AGRICOLA ABB=ON (L85 OR L86 OR L87)
```

#### => FILE CABA

L79

FILE 'CABA' ENTERED AT 12:27:30 ON 30 AUG 2002 COPYRIGHT (C) 2002 CAB INTERNATIONAL (CABI)

FILE COVERS 1973 TO 2 Aug 2002 (20020802/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

	·
=> D QUE L93	
L28 2 SEA FILE=REGISTRY ABB=ON "GLUTAMIC F	ACID"/CN
L29 1 SEA FILE=REGISTRY ABB=ON "PHOSPHORIC	C ACID"/CN
L30 3 SEA FILE=REGISTRY ABB=ON MAGNESIUM C	
OXIDE/CN OR ALUMINUM OXIDE/CN	
L31 85117 SEA FILE=HCAPLUS ABB=ON L28 OR GLUTA	AMIC ACID
L32 72538 SEA FILE=HCAPLUS ABB=ON L29 OR PHOSE	PHORIC ACID
L34 537292 SEA FILE=HCAPLUS ABB=ON L30 OR (MAGN	NESIUM OR ALUMINUM OR
ALUMINIUM OR MAGNESIUM OR CALCIUM) (W)	OXIDE# OR MGO OR AL2O3 OR
CAO	•
L44 123369 SEA FILE=HCAPLUS ABB=ON L31 OR CORN?	(3A)LIQ? OR (YEAST? OR
FERMENT) (3A) SOLUB? OR WHEY OR MOLASSE	ES .
L45 1 SEA FILE=REGISTRY ABB=ON 13598-36-2/	'RN
L46 5066 SEA FILE=HCAPLUS ABB=ON L45	
L47 1 SEA FILE=REGISTRY ABB=ON 7783-28-0/F	RN
L48 4804 SEA FILE=HCAPLUS ABB=ON L47	
L49 1 SEA FILE=REGISTRY ABB=ON 7722-76-1/F	RN
L50 5120 SEA FILE=HCAPLUS ABB=ON L49	
L51 564073 SEA FILE=HCAPLUS ABB=ON L32 OR L50 C	OR L48 OR L46 OR PHOSPHORUS
ACID OR PHOSPHATE? OR PHOSPHONATE?	
L52 722452 SEA FILE=HCAPLUS ABB=ON L34 OR CACL	
"CA(OH)2" OR MGCL OR MG2SO4 OR MFOH O	
) (CHLORIDE OR SULFATE OR SULPHATE OR	ACETATE OR PROPIONATE OR
CARBONATE OR HYDROXIDE)	
L53 769665 SEA FILE=HCAPLUS ABB=ON L52 OR MGCL2	
L64 1 SEA FILE=REGISTRY ABB=ON 10043-52-4/	'RN
L65 28671 SEA FILE=HCAPLUS ABB=ON L64	
L66 1 SEA FILE=REGISTRY ABB=ON 7786-30-3/F	RN
L67 21464 SEA FILE=HCAPLUS ABB=ON L66	
L68 1 SEA FILE=REGISTRY ABB=ON 7778-18-9/F	RN
L69 10527 SEA FILE=HCAPLUS ABB=ON L68	
L70 1 SEA FILE=REGISTRY ABB=ON 7487-88-9/F	RN
L71 11608 SEA FILE=HCAPLUS ABB=ON L70	
L72 1 SEA FILE=REGISTRY ABB=ON 4075-81-4/F	RN
L73 481 SEA FILE=HCAPLUS ABB=ON L72	
1 SEA FILE=REGISTRY ABB=ON 1309-42-8/F	KN .
L75 10457 SEA FILE=HCAPLUS ABB=ON L74	
L76 1 SEA FILE=REGISTRY ABB=ON 1305-62-0/F	KN
L77 20976 SEA FILE=HCAPLUS ABB=ON L76	_
L78 1 SEA FILE=REGISTRY ABB=ON 471-34-1/RN	<b>I</b>

46750 SEA FILE=HCAPLUS ABB=ON L78

3 SEA FILE=CABA ABB=ON (L85 OR L86 OR L87)

## => FILE BIOSIS

L93

FILE 'BIOSIS' ENTERED AT 12:27:41 ON 30 AUG 2002 COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC.(R)

FEVER)

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 28 August 2002 (20020828/ED)

=> D QUE	L94	
L28		SEA FILE=REGISTRY ABB=ON "GLUTAMIC ACID"/CN
		SEA FILE=REGISTRY ABB=ON "PHOSPHORIC ACID"/CN
L30		SEA FILE=REGISTRY ABB=ON MAGNESIUM OXIDE/CN OR CALCIUM
		OXIDE/CN OR ALUMINUM OXIDE/CN
L31	85117	SEA FILE=HCAPLUS ABB=ON L28 OR GLUTAMIC ACID
		SEA FILE=HCAPLUS ABB=ON L29 OR PHOSPHORIC ACID
L34	537292	SEA FILE=HCAPLUS ABB=ON L30 OR (MAGNESIUM OR ALUMINUM OR
		ALUMINIUM OR MAGNESIUM OR CALCIUM) (W) OXIDE# OR MGO OR AL2O3 OR
		CAO
L44	123369	SEA FILE=HCAPLUS ABB=ON L31 OR CORN?(3A)LIQ? OR (YEAST? OR
		FERMENT) (3A) SOLUB? OR WHEY OR MOLASSES
L45	1	SEA FILE=REGISTRY ABB=ON 13598-36-2/RN
L46	5066	SEA FILE=HCAPLUS ABB=ON L45
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L48	4804	SEA FILE=HCAPLUS ABB=ON L47
L49	1	SEA FILE=REGISTRY ABB=ON 7722-76-1/RN
L50		SEA FILE=HCAPLUS ABB=ON L49
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		"CA(OH)2" OR MGCL OR MG2SO4 OR MFOH OR (CALCIUM OR MAGNESIUM)(W
		)(CHLORIDE OR SULFATE OR SULPHATE OR ACETATE OR PROPIONATE OR
		CARBONATE OR HYDROXIDE)
L53		SEA FILE=HCAPLUS ABB=ON L52 OR MGCL2 OR MGSO4 OR "MG(OH)2"
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L67		SEA FILE=HCAPLUS ABB=ON L66
L68		SEA FILE=REGISTRY ABB=ON 7778-18-9/RN
L69		SEA FILE=HCAPLUS ABB=ON L68
L70		SEA FILE=REGISTRY ABB=ON 7487-88-9/RN
L71		SEA FILE=HCAPLUS ABB=ON L70
L72		SEA FILE=REGISTRY ABB=ON 4075-81-4/RN
L73 ·	481	SEA FILE=HCAPLUS ABB=ON L72

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LEVY 09/768623 Page 19
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L78
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L79
           46750 SEA FILE=HCAPLUS ABB=ON L78
L80
                1 SEA FILE=REGISTRY ABB=ON 62-54-4/RN
L81
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L82
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                  L73 OR L71 OR L69 OR L67 OR L65
             837 SEA FILE=HCAPLUS ABB=ON L44 AND L51 AND L82
218 SEA FILE=HCAPLUS ABB=ON L83 AND FEED?/SC,SX,AB,BI
8 SEA FILE=HCAPLUS ABB=ON L84 AND (COTTONSEED# OR COTTON SEED#)
L83
L84
L85
L86
               14 SEA FILE=HCAPLUS ABB=ON L84 AND SEED#
L87
                3 SEA FILE=HCAPLUS ABB=ON L83 AND (CALCULI OR CALCULUS OR MILK
                  FEVER)
L94
                1 SEA FILE=BIOSIS ABB=ON (L85 OR L86 OR L87)
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### => FILE MEDLINE

FILE 'MEDLINE' ENTERED AT 12:27:53 ON 30 AUG 2002

FILE LAST UPDATED: 29 AUG 2002 (20020829/UP). FILE COVERS 1958 TO DATE.

On June 9, 2002, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2002 vocabulary. Enter HELP THESAURUS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

=> D QUE L95	
L28	SEA FILE=REGISTRY ABB=ON "GLUTAMIC ACID"/CN
	SEA FILE=REGISTRY ABB=ON "PHOSPHORIC ACID"/CN
L30	B SEA FILE=REGISTRY ABB=ON MAGNESIUM OXIDE/CN OR CALCIUM
	OXIDE/CN OR ALUMINUM OXIDE/CN
L31 8511	7 SEA FILE=HCAPLUS ABB=ON L28 OR GLUTAMIC ACID
L32 72538	S SEA FILE=HCAPLUS ABB=ON L29 OR PHOSPHORIC ACID
L34 537292	SEA FILE=HCAPLUS ABB=ON L30 OR (MAGNESIUM OR ALUMINUM OR
	ALUMINIUM OR MAGNESIUM OR CALCIUM) (W) OXIDE# OR MGO OR AL203 OR
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L44 123369	B SEA FILE=HCAPLUS ABB=ON L31 OR CORN?(3A)LIQ? OR (YEAST? OR
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LEVY 09/768623 Page 20
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            218 SEA FILE=HCAPLUS ABB=ON L83 AND FEED?/SC, SX, AB, BI
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              8 SEA FILE=HCAPLUS ABB=ON L84 AND (COTTONSEED# OR COTTON SEED#)
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L86
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FILE 'HCAPLUS' ENTERED AT 12:28:15 ON 30 AUG 2002
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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIX' ENTERED AT 12:28:15 ON 30 AUG 2002 COPYRIGHT (C) 2002 THOMSON DERWENT

FILE 'CABA' ENTERED AT 12:28:15 ON 30 AUG 2002 COPYRIGHT (C) 2002 CAB INTERNATIONAL (CABI)

FILE 'BIOSIS' ENTERED AT 12:28:15 ON 30 AUG 2002 COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC. (R) PROCESSING COMPLETED FOR L89 PROCESSING COMPLETED FOR L91 PROCESSING COMPLETED FOR L93 PROCESSING COMPLETED FOR L94 L96 31 DUP REM L89 L91 L93 L94 (2 DUPLICATES REMOVED)

### => D L96 1-31 ALL HITSTR

L96 ANSWER 1 OF 31 HCAPLUS COPYRIGHT 2002 ACS

ΑN 2002:609920 HCAPLUS

TΤ Human desaturase gene and uses thereof

TN Mukerji, Pradip; Leonard, Amanda Eun-Yeong; Huang, Yung-Sheng; Das, Tapas

PA Abbott Laboratories, USA

SO U.S., 88 pp., Cont.-in-part of U.S. 5,972,664. CODEN: USXXAM

DTPatent

LΑ English

ICM C12P007-40 IC

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

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ICS C12N009-02; C12N001-20; C12N015-00; C07H021-04
NCL
     435136000
     3-3 (Biochemical Genetics)
CC
     Section cross-reference(s): 7, 13, 17, 62, 63
FAN.CNT 7
     PATENT NO.
                      KIND DATE
                                             APPLICATION NO.
                                                               DATE
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                            -----
                                             ______
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     US 6432684
                       В1
                             20020813
                                             US 1999-227613
                                                               19990108
                       A
     US 5972664
                             19991026
                                             US 1997-833610
                                                               19970411
                      A1
     WO 9846765
                             19981022
                                             WO 1998-US7422
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             DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC,-LK,-LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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                                                               19991112
     WO 2000040705
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                        Α2
                                                              19991229
     WO 2000040705
                             20001109
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             PT, SE
     EP 1141252
                        Α2
                             20011010
                                             EP 1999-966710
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             AT, BE,
             IE, FI
PRAI US 1997-833610
                        A2
                             19970411
     WO 1998-US7422
                        Α2
                             19980410
     US 1999-227613
                        Α2
                             19990108
     WO 1999-US31163
                        W
                             19991229
AΒ
     The subject invention relates to the identification of a gene involved in
     the desatn. of polyunsatd. fatty acids at carbon 5 (i.e., "human
     .DELTA.5-desaturase") and to uses thereof. In particular, human
     .DELTA.5-desaturase may be utilized, for example, in the conversion of dihomo-.gamma.-linolenic acid (DGLA) to arachidonic acid (AA) and in the
     conversion of 20:4n-3 to eicosapentaenoic acid (EPA). AA or polyunsatd.
     fatty acids produced therefrom may be added to pharmaceutical compns.,
     nutritional compns., animal feeds, as well as other products
     such as cosmetics. The subject invention relates to the identification of
     a gene involved in the desatn. of polyunsatd. fatty acids at carbon 5
     (i.e., "human .DELTA.5-desaturase") and to uses thereof. The cDNA
     encoding human .DELTA.5-desaturase was isolated from a human monocyte cDNA
     library based on its homol. to desaturases from Mortierella alpina
    · desaturase and use of the Incyte LifeSeq database of expressed sequence
     tags. Human .DELTA.5-desaturase may be utilized, for example, in the
     conversion of dihomo-.gamma.-linolenic acid (DGLA) to arachidonic acid
     (AA) and in the conversion of 20:4n-3 to eicosapentaenoic acid (EPA). AA
     or polyunsatd. fatty acids produced therefrom may be added to
     pharmaceutical compns., nutritional compns., animal feeds, as
     well as other products such as cosmetics.
ST
     human desaturase cDNA sequence expression vector; nutrition compn
     polyunsatd fatty acid desaturase
TΤ
     INDEXING IN PROGRESS
ΙT
     Fats and Glyceridic oils
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (borage seed; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
IT
     Oat
```

```
(bran; protein and cDNA sequences of human .DELTA.5-desaturase gene and
        uses thereof)
     Caseins
IT
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (calcium complexes; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
     Bacillus subtilis
    Candida
    Cyanobacteria
    Escherichia coli
    Eukaryota
     Fungi
    Hansenula-
     Insecta
     Kluyveromyces
     Lipomyces starkeyi
    Mammalia
     Pichia
     Prokaryote
     Saccharomyces cerevisiae
     Saccharomyces pastorianus
    Trichoderma
     Yarrowia lipolytica
     Yeast
        (cell, .DELTA.5-desaturase can be expressed in; protein and cDNA
        sequences of human .DELTA.5-desaturase gene and uses thereof)
ΙT
    Canola oil
    Coconut oil
     Diglycerides
    Mineral elements
    Monoglycerides
     Protein hydrolyzates
    Soybean oil
    Vitamins
    RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (compn. contg. polyunsatd. fatty acids and; protein and cDNA sequences
        of human .DELTA.5-desaturase gene and uses thereof)
ΙT
    Genetic vectors
        (comprising .DELTA.5-desaturase; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
ΤТ
     Culture media
        (contg. an essential fatty acids; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
TΤ
     Rice (Oryza sativa)
        (crisped; protein and cDNA sequences of human .DELTA.5-desaturase gene
        and uses thereof)
ΙT
        (dietetic; protein and cDNA sequences of human .DELTA.5-desaturase gene
       and uses thereof)
ΙT
    Whey
        (electrodialyzed, compn. contg. polyunsatd. fatty acids and; protein
        and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)
IT
    Gene, animal
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (encoding .DELTA.5-desaturase; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
IT
     Fats and Glyceridic oils
    RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (fish; protein and cDNA sequences of human .DELTA.5-desaturase gene and
        uses thereof)
```

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ΙT
     Syrups (sweetening agents)
        (high-fructose hydrolyzed starch; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
IT
     Safflower oil
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (high-oleic; protein and cDNA sequences of human .DELTA.5-desaturase
        gene and uses thereof)
ΙT
     Milk substitutes
        (human; protein and cDNA sequences of human .DELTA.5-desaturase gene
        and uses thereof)
ΙT
     Syrups (sweetening agents)
        (hydrolyzed starch; protein and cDNA sequences of human
      - - DELTA.5-desaturase gene and uses thereof)
TΤ
     Animal cell
        (insect, recombinant host; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
TΤ
     Animal cell
        (mammalian, recombinant host; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
TΤ
     Fatty acids
     RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL
     (Biological study); USES (Uses)
        (monounsatd.; protein and cDNA sequences of human .DELTA.5-desaturase
        gene and uses thereof)
ΙT
     Flavoring materials
        (natural and artificial; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
ΙT
     Bran
        (oat; protein and cDNA sequences of human .DELTA.5-desaturase gene and
        uses thereof)
IT
     Cottonseed oil
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (partially hydrogenated; protein and cDNA sequences of human
        .DELTA.5-desaturase gene and uses thereof)
TT
     Fatty acids
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (polyunsatd.; protein and cDNA sequences of human .DELTA.5-desaturase
        gene and uses thereof)
ΙT
     Cocoa products
        (powders; protein and cDNA sequences of human .DELTA.5-desaturase gene
        and uses thereof)
ΙΤ
     Cosmetics
     Dietary fiber
     Drugs
       Feed additives
     Food additives
     Honey
     Human
     Malt
     Molecular cloning
     Protein sequences
     cDNA sequences
        (protein and cDNA sequences of human .DELTA.5-desaturase gene and uses
        thereof)
TT
     Fatty acids
     RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL
     (Biological study); USES (Uses)
        (protein and cDNA sequences of human .DELTA.5-desaturase gene and uses
        thereof)
ΙT
     Caseins
```

Corn oil

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT Plant cell

(recombinant host; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT Milk

(skim, electrodialyzed, compn. contg. polyunsatd. fatty acids and; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT Caseins

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (sodium complexes; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT Polysaccharides

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (soy; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT Lecithins

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (soya; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT Proteins

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (soybean, compn. contg. polyunsatd. fatty acids and; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT Diet

(supplements; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)  $\,$ 

IT 1783-84-2, dihomo-.gamma.-linolenic acid 24880-40-8

RL: BSU (Biological study, unclassified); BIOL (Biological study) (as substrate of .DELTA.5-desaturase; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT 50-81-7, Vitamin C 50-99-7, Glucose 63-42-3 1406-16-2, Vitamin D 1406-18-4, Vitamin E 11103-57-4, Vitamin A

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (compn. contg. polyunsatd. fatty acids and; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT 9005-25-8, Starch

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (corn, hydrolyzed; protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

IT 112-80-1, Oleic acid

RL: BCP (Biochemical process); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)

(protein and cDNA sequences of human .DELTA.5-desaturase gene and\_uses\_thereof)

IT 51901-23-6P, Fatty acid .DELTA.5-desaturase

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); FFD (Food or feed use); NUU (Other use, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)  $\ensuremath{\mathsf{CDNA}}$ 

IT 57-88-5, Cholesterol 506-32-1, Arachidonic acid 6217-54-5, Docosahexaenoic acid

RL: BSU (Biological study, unclassified); BIOL (Biological study) (protein and cDNA sequences of human .DELTA.5-desaturase gene and uses thereof)

10417-94-4

24880-45-3

ΙT

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RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL
     (Biological study); USES (Uses)
        (protein and cDNA sequences of human .DELTA.5-desaturase gene and uses
        thereof)
     56-81-5, Glycerol 57-10-3, Palmitic acid 57-11-4, Stearic acid 57-48-7, D-Fructose 57-50-1, Sucrose 58-56-0, Pyridoxine hydrochloride
IT
     58-85-5, Biotin 58-95-7, .alpha.-Tocopheryl acetate 59-30-3, Folic
           63-68-3, L-Methionine 67-03-8, Thiamine chloride hydrochloride
     67-48-1, Choline chloride 67-97-0, vitamin D3
                                                       68-19-9, Cyanocobalamin
     79-81-2, vitamin A palmitate 83-88-5, Riboflavin
                                                           84-80-0,
   - Phylloguinone
                    87-89-8, myo-Inositol 98-92-0, Niacinamide
                                                                     107-35-7,
     Taurine 124-07-2, Caprylic acid 137-08-6, Calcium pantothenate
     142-62-1, Caproic acid 334-48-5, Capric acid
                                                     373-49-9, Palmitoleic
     acid 471-34-1, Calcium carbonate
                                       506-26-3,
     .gamma.-Linolenic acid 527-09-3, Copper gluconate
    L-Carnitine 866-83-1, Potassium citrate 994-36-5, Sodium citrate
    1309-48-4, Magnesium oxide 1314-13-2, Zinc
             1934-21-0 2783-94-0, FD&C Yellow #6
                                                      7235-40-7, .beta.-Carotene
     7447-40-7, Potassium chloride 7631-95-0, Sodium molybdate
                                                                     7647-14-5,
    Sodium chloride 7681-11-0, Potassium iodide 7693-13-2, Calcium citrate 7720-78-7, Ferrous sulfate 7732-18-5, WATER 7733-02-0, Zinc sulfate
               7758-11-4, Potassium phosphate dibasic 7758-87-4
     7757-86-0
    7758-98-7, Cupric sulfate 7778-77-0, Potassium phosphate
               7785-87-7, Manganese sulfate 7786-30-3,
    Magnesium chloride 9000-07-1, Carrageenan
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    Cellulose 9050-36-6, Maltodextrin 10045-86-0, Ferric orthophosphate
     10102-18-8, Sodium selenite 25383-99-7, Sodium stearoyl lactylate
     39345-92-1, Chromium chloride 71010-52-1, Gellan gum
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (protein and cDNA sequences of human .DELTA.5-desaturase gene and uses
        thereof)
RE.CNT 13
              THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; WO 9311245 1993 HCAPLUS
(2) Anon; WO 9411516 1994 HCAPLUS
(3) Anon; WO 9613591 1996 HCAPLUS
(4) Anon; WO 9846765 1998 HCAPLUS
(5) Anon; WO 0020603 2000 HCAPLUS
(6) Anon; The Faseb Journal, Part 1, Abstract 3093, Experimental Biology 98
    1998, PA532
(7) Chaudhary; WO 9846763 Al 1998 HCAPLUS
(8) Cho, H; Journal of Biological Chemistry 1999, V274(52), P37335 HCAPLUS
(9) Cho, H; The Journal of Biological Chemistry 1999, V274(1), P471 HCAPLUS
(10) Hitz; US 5443974 A 1995 HCAPLUS
(11) Knutzon, D; The Journal of Biological Chemistry 1998, V273(45), P29360
    HCAPLUS
(12) Michaelson, L; Journal of Biological Chemistry 1998, V273(30), P19055
    HCAPLUS
(13) Thomas; US 5552306 A 1996 HCAPLUS
    471-34-1, Calcium carbonate 1309-48-4
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CN
     Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)
```

60-33-3, 9,12-Octadecadienoic acid (92,122)- 463-40-1, .alpha.-Linolenic

```
О
||
НО— С— ОН
```

Ca

RN 1309-48-4 HCAPLUS

CN Magnesium oxide (MgO) (9CI) (CA INDEX NAME)

Mq = 0

RN 7786-30-3 HCAPLUS

CN Magnesium chloride (MgCl2) (9CI) (CA INDEX NAME)

Cl-Mg-Cl

L96 ANSWER 2 OF 31 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:591669 HCAPLUS

TI Symbiotic regenerative compositions containing microorganisms

IN Schuer, Joerg-Peter

PA Germany

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM A61K045-06

ICS A61P043-00

CC 18-6 (Animal Nutrition)

Section cross-reference(s): 63, 17, 1

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI EP 1228769 A1 20020807 EP 2001-102384 20010202 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

AB The invention concerns regenerative drugs, dietary supplements, feed additives that contain microorganisms and modulating substances, e.g. enzymes, GRAS (Generally Recognized As Safe) aromas, plant exts. Further the compns. contain vitamins, minerals, growth promoters, carrier substances, etc. Microorganisms are a-pathogenic, pathogenic or facultative pathogenic.

ST symbiotic regenerative compn microorganism Lactobacillus diet **feed** supplement

supprement

IT Esters

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(GRAS; symbiotic regenerative compns. contg. microorganisms)

IT Balsams

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Peru; symbiotic regenerative compns. contq. microorganisms)

```
ΙT
    Wool
        (angora; symbiotic regenerative compns. contq. microorganisms)
ΙT
    Fats and Glyceridic oils
    RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
    study); USES (Uses)
        (animal, seal; symbiotic regenerative compns. contg. microorganisms)
    Fats and Glyceridic oils
ΙT
    RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
    study); USES (Uses)
        (animal, whale; symbiotic regenerative compns. contq. microorganisms)
IT
    Oak (Quercus)
        (bark; symbiotic regenerative compns. contg. microorganisms)
IT
    Pollen
     Venoms
        (bee; symbiotic regenerative compns. contg. microorganisms)
IT
    Essential oils
    RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (cajuput; symbiotic regenerative compns. contq. microorganisms)
IT
    Brain
        (calf, ext.; symbiotic regenerative compns. contg. microorganisms)
IT
    Wool
        (cashmere; symbiotic regenerative compns. contg. microorganisms)
IT
     Intestine
        (catqut; symbiotic regenerative compns. contq. microorganisms)
ΙT
    Heart
        (cattle, ext.; symbiotic regenerative compns. contg. microorganisms)
IT
        (civet; symbiotic regenerative compns. contg. microorganisms)
IT
    Balsams
    RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (copaiba; symbiotic regenerative compns. contg. microorganisms)
TT
    Mushroom
        (edible; symbiotic regenerative compns. contg. microorganisms)
IT
    Liver
        (exts.; symbiotic regenerative compns. contg. microorganisms)
ΙT
    Soybean (Glycine max)
        (flour; symbiotic regenerative compns. contg. microorganisms)
IT
    Drug delivery systems
        (infusions; symbiotic regenerative compns. contg. microorganisms)
ΙT
     Drug delivery systems
        (injections; symbiotic regenerative compns. contg. microorganisms)
IT
    Birch (Betula)
        (leaf; symbiotic regenerative compns. contg. microorganisms)
IT
    Drug delivery systems
       (liqs.; symbiotic regenerative compns. contg. microorganisms)
IΤ
    Embryophyta
        (medicinal plant; symbiotic regenerative compns. contg. microorganisms)
    Fats and Glyceridic oils
IT
    RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (mink; symbiotic regenerative compns. contg. microorganisms)
ΙT
    Fatty acids
    RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (of edible oils; symbiotic regenerative compns. contq. microorganisms)
ΙT
        (oil; symbiotic regenerative compns. contg. microorganisms)
IT
     Drug delivery systems
```

```
Burdock
Calamus (palm genus)
Camellia
Caraway (Carum carvi)
Cardamom
Carrot
Caviar
Centaurea cyanus
Centaurium
Chelidonium majus
Chrysanthemum
Cinchona
Cinnamon (horticultural common name)
Citrobacter
Cladosporium
Clove (Syzygium aromaticum)
Clover (Trifolium)
Cocoa (Theobroma cacao)
Coconut (Cocos nucifera)
Coffee (Coffea)
Coltsfoot
Comfrey (Symphytum officinale)
Coneflower
Coral
Coriander
Corynebacterium pseudodiphtheriticum
Corynebacterium xerosis
Croton eluteria
Crustacea
Cucumber (Cucumis sativus)
Cypress (Cupressus)
Dactylopius coccus
Dandelion
Derris (genus)
Digestive tract
Dill
Egg, poultry
Emulsifying agents
Equisetum
Eucalyptus
Eucalyptus citriodora
Feather
  Feed additives
Fennel (Foeniculum vulgare)
Fenugreek (Trigonella foenum-graecum)
Fish
Flavor
Fungicides
Fur
Gaffkya tetragena
Garlic (Allium sativum)
Gentian (Gentiana)
Geotrichum
Ginger
Ginkgo
Ginseng (Panax)
Grapefruit
Guarana (Paullinia cupana)
Hair
Hamamelis
```

```
Hawthorn (Crataegus)
Hay
Hibiscus
Honey
Hop (Humulus)
Horse chestnut (Aesculus)
Immunostimulants
Immunosuppressants
Immunotherapy
Ivory
Ivy (Hedera)
Jojoba (Simmondsia chinensis)
Juniper (Juniperus)
Lactobacillus acidophilus
Lactobacillus casei
Lactobacillus delbrueckii bulgaricus
Lactobacillus fermentum
Lamium
Laurus nobilis
Lavender (Lavandula)
Lawsonia inermis
Leather
Lemon (Citrus limon)
Lemongrass
Licorice (Glycyrrhiza)
Lime (Citrus aurantifolia)
Linden (Tilia)
Liquidambar
Mallow (Malva)
Mandarin orange
Mango (Mangifera indica)
Marigold
Marjoram
Marshmallow (Althaea officinalis)
Matricaria recutita
Meat
Melissa
Melon (plant)
Mentha aquatica
Menyanthes trifoliata
Milk
Mistletoe
Moraxella catarrhalis
Moschus
Mucor
Mustard (Brassica)
Myristica
Neisseria flava
Neisseria flavescens
Neisseria perflava
Neisseria sicca
Neisseria subflava
Nut (seed)
Odor and Odorous substances
Onion (Allium cepa)
Orange
Oregano
Orthosiphon
```

Paprika Passionflower (Passiflora edulis)

Peach (Prunus persica)

Pearl

Peppermint (Mentha piperita)

Phosphors Pine (Pinus) Placenta

Plantago major

Pollen Porifera

Potato (Solanum tuberosum)

Poultry

Preservatives

Primrose (Primula veris)

Propolis Quassia

Rhodotorula rubra

Rhubarb (Rheum)
Rice (Oryza sativa)

Rosemary

Royal jelly

Ruscus aculeatus

Saccharomyces cerevisiae

Sage (Salvia)

Sarcina

Savory (Satureja)

Seal (animal)

Serratia marcescens

Sesame (Sesamum indicum)

Silk

Solvents

Soybean (Glycine max)

Spruce (Picea)

St.-John's-wort (Hypericum)

Staphylococcus epidermidis

Streptococcus

Styrax

Sunflower

Tarragon (Artemisia dracunculus)

Tea (Camellia sinensis)

Theobroma grandiflorum

Thyme (Thymus)

Torulopsis

Urtica

Valerian (Valeriana)

Veillonella parvula

Veratrum viride

Walnut

Watermelon (Citrullus lanatus)

Wheat bran

Whey

Yarrow (Achillea)

Yeast

Yew (Taxus)

Ylang-ylang (Cananga odorata)

(symbiotic regenerative compns. contg. microorganisms)

IT Amino acids

Anthocyanins

```
Antitoxins
    Bile acids
    Carbohydrates
    Caseins
    Castor oil
    Collagens
    Enzymes
    Essential oils
    Estrogens
    Flavones
    Flavonoids
    Gelatins
    Hormones, animal
    Keratins
    Lanolin
    Lecithins
    Minerals
    Phenols
    Proteins
    Rennets
    Rosin
    Saponins
    Shellac
    Tannins
    Terpenes
    Trace metals
    Turpentine oil
    Vitamins
    Waxes
    RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
    study); USES (Uses)
        (symbiotic regenerative compns. contq. microorganisms)
IT
    Drug delivery systems
        (tablets; symbiotic regenerative compns. contq. microorganisms)
    Drug delivery systems
ΙT
        (transdermal; symbiotic regenerative compns. contg. microorganisms)
ΙT
        (turpentine; symbiotic regenerative compns. contq. microorganisms)
IT
        (vermouth; symbiotic regenerative compns. contg. microorganisms)
TΨ
    9005-25-8, starch
    RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological
    study); USES (Uses)
        (potato; symbiotic regenerative compns. contq. microorganisms)
IT
    50-14-6, Calciferol 50-21-5, Lactic acid
                                               50-81-7, L-Ascorbic acid
                          56-81-5, Glycerin 56-87-1, L-Lysine
    52-90-4, L-Cysteine
                                                                  57-11-4D,
                            57-13-6, Urea
    Stearic acid, derivs.
                                           57-55-6, Propyleneglycol
                            57-88-5, Cholesterol
    57-83-0, Progesterone
                                                   58-22-0, Testosterone
    59-02-9, .alpha.-Tocopherol 59-43-8, Thiamin
                                                     59-67-6, Nicotinic acid
    62-54-4, Calciumacetate
                             64-17-5, Ethylalcohol
                                                      64-18-6, Formic
           64-19-7, Acetic acid
                                 66-25-1, Hexylaldehyde
                                                           67-63-0,
    Isopropanol 69-65-8, Mannite 70-47-3, L-Asparagine
                                                             71-23-8,
                    71-36-3, n-Butylalcohol 71-41-0, n-Amylalcohol
    Propylalcohol
                                              77-92-9, Citric acid 78-70-6,
    75-07-0, Acetaldehyde
                           76-22-2, Camphor
               78-83-1, Iso Butylalcohol 78-84-2 79-83-4, Pantothenic acid
    Linalool
    83-79-4, Rotenone 83-88-5, Riboflavin 87-44-5, .beta.-Caryophyllen
                                              89-83-8, Thymol
    87-66-1, Pyrogallol 87-89-8, Inositol
                                                                90-64-2,
                                             93-28-7, Eugenolacetate
                   93-15-2, Methyleugenol
    Mandelic acid
                    94-86-0, Propenylguaethol
                                                 97-53-0, Eugenol
    94-59-7, Safrol
                                                                     97 - 54 - 1,
    Isoeugenol
                 98-01-1, Furfural 98-85-1, .alpha.-Methylbenzylalcohol
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100-51-6, Benzylalcohol 100-52-7, Benzaldehyde 100-66-3, Anisol 102-16-9, Benzylphenylacetate 102-76-1, Triacetine 103-09-3, 103-45-7 103-54-8, Cinnamylacetate 103-82-2, Octylacetate Phenylacetic acid 104-46-1, Anethol 104-53-0, Hydrocinnamic aldehyde 104-54-1, Cinnamic alcohol 104-55-2, Cinnamic aldehyde 105-13-5, Anis 105-13-5, Ānise 105-82-8, Acetaldehyde dipropylacetal 105-87-3, Geranylacetate 106-22-9, Citronellol 106-23-0, Citronellal 106-24-1, Geraniol 108-46-3, Resorcin 108-73-6, Phloroglucin 108-95-2, Phenol 109-52-4, 110-17-8, Fumaric acid 110-82-7, Cyclohexane Valeric acid 111-02-4, 111-70-6, Heptylalcohol 111-71-7, Heptylaldehyde squalene 111-87-5, 112-05-0, Pelargonic acid 112-30-1, n-Decylalcohol Octylalcohol 112-31-2, Decanal 112-43-6, 10-Undecen-1-ol 112-53-8, Laurylalcohol 112-54-9, Laurylaldehyde 113-24-6, Sodium pyruvate 115-95-7, Linalylacetate 120-57-0, Heliotropin 120-80-9, Catechin 12 120-80-9, Catechin 121-32-4, 121-33-5, Vanillin 122-03-2, Cuminaldehyde 122-59-8, Ethylvanillin 122-72-5, Hydrocinnamylacetate 122-78-1, 122-87-2, Glycin 123-31-9, Hydroquinone Phenoxyacetic acid Phenylacetaldehyde 123-38-6, Propionaldehyde 123-51-3, Iso-Amylalcohol 123-86-4, 123-92-2, Iso-Amylacetate 124-04-9, Hexanedioic acid 123-86-4, n-Butylacetate 124-13-0, Octylaldehyde 124-19-6, Nonylaldehyde 125-46-2, Usnic acid Potassium acetate 127-09-3, Sodium acetate 127-40-2, Lutein 137-08-6, Calciumpantothenate 137-66-6, Ascorbic palmitate 138-86-3, 140-11-4, Benzylacetate 140-67-0, Methylchavicol Ethylacetate 142-62-1, Capronic acid 142-92-7, Hexylacetate 143-08-8, Nonylalcohol 147-85-3, L-Proline 148-03-8, beta.-Tocopherol 149-91-7D, Gallic acid, derivs. 150-84-5, Citronellylacetate 153-18-4, Rutin 303-98-0, Coenzyme Q10 321-30-2, Adenine sulfate 331-39-5, Caffeic acid 367-51-1, Sodium thioglycolate 432-70-2, 499-12-7, Aconitic acid .alpha.-Carotene 499-75-2, Carvacrol 501-52-0, Hydrocinnamic acid 503-74-2, Iso-Valeric acid 507-70-0, 513-86-0, Acetoin 514-78-3, Canthaxanthine 515-69-5, 526-83-0, Tartaric acid 536-60-7, Cuminylalcohol .alpha.-Bisabolol 541-15-1, L-Carnitine 621-82-9, Cinnamic acid 871-22-7, Acetaldehyde dibutyl acetal 1260-17-9, Carminic acid 1335-39-3, Hexenal 1398-61-4, chitin 1708-35-6 2568-25-4, Benzaldehyde propylene 1390-65-4, Carmine 1393-63-1, Annatto 2111-75-3, Perillaaldehyde 2216-51-5 glycolacetal 5392-40-5, Citral 5660-60-6 6812-78-8, Rhodinol 7212-44-4, Nerolidol 6915-15-7, Malic acid 7235-40-7, .beta.-Carotene 7439-89-6, Iron 7439-95-4, Magnesium 7439-96-5, Manganese 7439-98-7, Molybdenum 7440-09-7, Potassium 7440-21-3, Silicon 7440-31-5, Tin 7440-47-3, Chromium 7440-50-8, Copper 7440-70-2, Calcium 7447-41-8, Lithiumchloride 7487-88-9, Magnesium-sulfate 7493-57-4, Acetaldehyde phenethylpropyl acetal 7553-56-2, Iodine 7558-79-4, Disodium hydrogen phosphate 7616-22-0, .gamma.-Tocopherol 7631-86-9, Silica 7647-14-5, Sodium chloride 7778-77-0, Potassium dihydrogen phosphate 7782-49-2, Selenium 7779-41-1, Decanaldimethyl acetal 7782-50-5, Chlorine 8000-41-7, Terpineol 8007-35-0, Terpinylacetate 9000-69-5, 9000-92-4, Amylase 9001-33-6, Ficin 9001-62-1, Lipase 9001-73-4, Papain 9001-75-6, Pepsin 9001-92-7, Protease 9001-98-3, 9002-07-7, Trypsin 9003-99-0, Peroxidase 9004-07-3, 9004-08-4, Cathepsin 9005-32-7, Alginic acid 9005-53-2, Chymotrypsin 9013-05-2, Phosphatase 9013-19-8, Isomerase 9013-79-0, 9015-85-4, DNA-Ligase 9027-41-2, Hydrolase Esterase 9031-55-4, 9032-92-2, Glycosidase 9031-56-5, Ligase 9035-73-8, Carboxylase 9035-82-9, Dehydrogenase 9037-29-0, Oxygenase 9047-61-4, 9055-04-3, Lyase 9055-15-6, Oxidoreductase 10032-05-0, Heptanaldimethyl acetal 10043-52-4, Calcium 10124-49-9, Iron sulfate 15431-40-0, Magnesium 25917-35-5, Hexanol 26628-22-8, Sodium azide ascorbate 33735-91-0,

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LEVY 09/768623 Page 34
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Guanine hydrochloride 36653-82-4, 1-Hexadecanol 37259-52-2, DNA-Ligase 50984-52-6, Anisaldehyde 84843-69-6, Tryptose 119129-70-3, Ananain 150977-36-9, Bromelain 159519-79-6, Brenzcatechin 183256-98-6, Fornesol 186209-48-3, Nonadienol RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological

study); USES (Uses)

(symbiotic regenerative compns. contg. microorganisms)
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Araki, S; US 5741494 A 1998
- (2) Heppner, N; DE 3938233 A 1990
- (3) Merck Patent Gmbh; DE 19830528 A 1999 HCAPLUS
- (4) Prasad, N; US 6080401 A 2000
- (5) Procter & Gamble; WO 9729762 A 1997

# IT 62-54-4, Calciumacetate 7487-88-9, Magnesium-sulfate 10043-52-4, Calcium chloride

RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(symbiotic regenerative compns. contg. microorganisms)

RN 62-54-4 HCAPLUS

CN Acetic acid, calcium salt (8CI, 9CI) (CA INDEX NAME)

1/2 Ca

RN 7487-88-9 HCAPLUS

CN Sulfuric acid magnesium salt (1:1) (8CI, 9CI) (CA INDEX NAME)

Mg

RN 10043-52-4 HCAPLUS

CN Calcium chloride (CaCl2) (9CI) (CA INDEX NAME)

Cl-Ca-Cl

L96 ANSWER 3 OF 31 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:31268 HCAPLUS

DN 134:85345

TI Animal feed composition made from settable liquid ingredients

IN Stansby, Mark Richard



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LEVY 09/768623 Page 35
     Ridley Research and Development Corporation Limited, Australia
PΑ
SO
     PCT Int. Appl., 19 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
     ICM A23K001-00
IC
      ICS A23K001-20; A23K001-22
     17-12 (Food and Feed Chemistry)
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                             DATE
                                            -----
PΙ
     WO 2001001790
                      A1
                             20010111
                                            WO 1999-AU541
                                                             19990701
         W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
              JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9945931
                       A1
                             20010122
                                           AU 1999-45931
                                                             19990701
PRAI WO 1999-AU541
                       Α
                             19990701
     A method of forming animal feed licking blocks involving mixing
     at least one animal feed component with magnesium
     sulfate heptahydrate and reactive magnesium
     oxide to form a compn., adjusting the water level of the compn. to
     a level to allow the compn. to be poured into molds (up to .apprx.30%),
     and allowing the compn. to set in the molds. The formulation contains
     1-50% of Mg sulfate and reactive MgO each (preferably 2-15%
     each), in a ratio of 1:1 to 1:2; increasing the proportion of MgO
     increases the resulting hardness of the blocks. The blocks can contain
     5-80% added nutrients (salt, urea, minerals, vitamins), up to 50%
     feed ingredients (meals, molasses, animal and vegetable
     fats, etc.), up to 25% medicating agents (antimicrobials, anthelmintics,
     insecticides, probiotics, enzymes), and other components (clay,
     bentonite).
ST
     feed lick block prepn magnesium oxide
     sulfate
TΤ
     Polyphosphoric acids
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
         (ammonium salts; feed licking block compn. and prepn. from
        settable liq. ingredients contg. magnesium oxide
        and sulfate)
IT
     Cottonseed meal
       Feed
     Lupine (Lupinus)
       Molasses
     Soybean meal
         (feed licking block compn. and prepn. from settable liq.
        ingredients contg. magnesium oxide and sulfate)
     Limestone, biological studies
     Mineral elements, biological studies
     Soybean oil
     Vitamins
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
         (feed licking block compn. and prepn. from settable liq.
        ingredients contg. magnesium oxide and sulfate)
IT
     57-13-6, Urea, biological studies 471-34-1, Calcium
     carbonate, biological studies 1309-48-4,
```

LEVY 09/768623 Page 36 Magnesium oxide, biological studies 3983-19-5, Calcium bicarbonate 7647-14-5, Salt, biological studies 7722-88-5 7757-93-9, Dicalcium phosphate 7778-18-9, Calcium sulfate 10034-99-8, Magnesium sulfate heptahydrate RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (feed licking block compn. and prepn. from settable liq. ingredients contg. magnesium oxide and sulfate) THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT RE (1) Landrivon, H; FR A2478954 1981 (2) Maple Leaf Foods Inc; AU A4617896 1996 (3) Martin Marietta Corporation; EP 231079 1987 HCAPLUS

- (4) Martin Marietta Corporation; WO A8801475 1988
- (5) Martin Marietta Magnesia Specialties Inc; WO 9403073 1994 HCAPLUS
- (6) Muller, F; DE A1925180 1970
- (7) Webb; US 5786007 1998 HCAPLUS
- ΙT 471-34-1, Calcium carbonate, biological studies 1309-48-4, Magnesium oxide,

biological studies 7778-18-9, Calcium sulfate

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (feed licking block compn. and prepn. from settable liq. ingredients contg. magnesium oxide and sulfate)

471-34-1 HCAPLUS RN

CN Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)

Ca

RN 1309-48-4 HCAPLUS Magnesium oxide (MgO) (9CI) (CA INDEX NAME) CN

Mg=== 0 ·

7778-18-9 HCAPLUS RN Sulfuric acid, calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME) CN

Сa

L96 ANSWER 4 OF 31 WPIX (C) 2002 THOMSON DERWENT

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for which all amino acids, with the exception of .gamma.-carboxyglutamic

acid, had only a weak affinity. The binding affinity of these acids is thought to be due to their zwitterions being able to adopt conformations in which two carboxyl groups, and possibly the amino group, can interact with the mineral surface without further rotation. The strong binding affinity of di-and tri-carboxylic acids for calcium stone minerals indicates that proteins rich in these amino acids are more likely to play a functional role in stone pathogenesis than those possessing only a few such residues. These findings, as well as the preferential adsorption of the amino acids for calcium oxalate monohydrate rather than calcium phosphate minerals, have ramifications for research aimed at discovering the true role of proteins in stone formation and for potential application in the design of synthetic peptides for use in stone therapy. calcium mineral amino acid adsorption kidney stone

IT Adsorption

ST

Calculi, renal

Human

Zwitterions

(adsorption of amino acids on to calcium minerals found in human renal calculi)

IT Amino acids, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (adsorption of amino acids on to calcium minerals found in human renal calculi)

IT 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological 56-45-1, L-Serine, biological studies 56-84-8, L-Aspartic acid, biological studies 56-86-0, L-Glutamic acid, biological studies 56-87-1, L-Lysine, biological studies 56-89-3, L-Cystine, biological studies 60-18-4, L-Tyrosine, biological 61-90-5, L-Leucine, biological studies 63-68-3, L-Met studies 63-91-2, L-Phenylalanine, biological studies 63-68-3, L-Methionine, biological studies 71-00-1, L-Histidine, biological studies 72-18-4, L-Valine, biological 72-19-5, L-Threonine, biological studies 73 - 32 - 5, L-Isoleucine, biological studies 74-79-3, L-Arginine, biological studies 147-85-3, L-Proline, biological studies 327-57-1, L-Norleucine 7758-87-4, Calcium 5794-28-5, Calcium oxalate monohydrate phosphate (Ca3(PO4)2) 7789-77-7, Calcium phosphate (CaHPO4) dihydrate 12167-74-7, Calcium hydroxide phosphate (Ca5(OH)(PO4)3) 40967-85-9, Methionine, sulfate 56271-99-9, .gamma.-Carboxyglutamic acid RL: BSU (Biological study, unclassified); BIOL (Biological study) (adsorption of amino acids on to calcium minerals found in human renal

calculi)
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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Absolute stereochemistry.

NH<sub>2</sub>
HO<sub>2</sub>C S CO<sub>2</sub>H

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L96 ANSWER 6 OF 31 HCAPLUS COPYRIGHT 2002 ACS
                                                          DUPLICATE 1
     1999:401521 HCAPLUS
ΑN
DN
     131:31318
TΤ
     Feed containing molasses bentonite and zeolite
ΤN
     Kemp, Philip W.; Nougher, Thomas Hall
PA
     Australia
SO
     U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 368,723, abandoned.
     CODEN: USXXAM
\mathsf{D}\mathbf{T}
     Patent
LA
     English
IC
     A23K001-165
NCL 424442000
CC
     17-12 (Food and Feed Chemistry)
FAN.CNT 2
     PATENT NO.
                       KIND DATE
                                             APPLICATION NO.
     US 5908634
                             19990601
                                             US 1996-858175
                                                               19961114
                       А
                             19921001
                                             WO 1992-AU104
                       Α1
                                                               19920310
         W: AU, JP, KR, US
PRAI WO 1992-AU104
                             19920310
```

CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,

Dyes

(4) Milchwerke, W; EP 0442140 A 1991

(5) Univ Otago; WO 9705789 A 1997 HCAPLUS

IT 471-34-1, Calcium carbonate, biological studies 1309-48-4, Magnesium oxide, biological studies

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (food or nutritional supplement prepn. and uses)

RN 471-34-1 HCAPLUS

CN Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)

Ca

RN 1309-48-4 HCAPLUS CN Magnesium oxide (MgO) (9CI) (CA INDEX NAME)

Mq == 0

ANSWER 8 OF 31 WPIX (C) 2002 THOMSON DERWENT ΑN 2000-024010 [03] WPIX 1999-459026 [39] CR DNC C2000-006065 ΤT Producing animal feed block compositions made from settable liquid ingredients useful as dietary supplements. DC STANSBY, M R ΙN (RIDL-N) RIDLEY RES & DEV CORP LTD PACYC 1 A 19991021 (200003)\* 18p AU 9943527 PΙ A23K001-00 B 20001012 (200055) AU 725349 A23K001-00 AU 9943527 A Div ex AU 1998-80873 19980824, AU 1999-43527 19990810; AU 725349 B Div ex AU 1998-80873 19980824, AU 1999-43527 19990810 AU 9943527 A Div ex AU 707606; AU 725349 B Div ex AU 707606, Previous Publ. AU 9943527 PRAI AU 1998-80873 19980824; AU 1999-43527 19990810 IC ICM A23K001-00 AΒ 9943527 A UPAB: 20001102 NOVELTY - A method (I) of forming a shaped, solid animal feed block, which comprises mixing 1 or more animal feed components

block, which comprises mixing 1 or more animal feed components with magnesium sulfate and reactive magnesium oxide and adjusting the water content of the composition to allow it to be poured into a mold, where it is then at least partially set.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a

shaped, solid animal **feed** block prepared by the method (I).

USE - (I) may be used for producing animal **feed** blocks.

ADVANTAGE - The use of **feed** blocks allows free choice in **feeding** and reduces the labor required for the **feeding** out process. Animal **feed** blocks are may also be made weather resistant, do not require sheltered **feeding** locations and can easily be transported from one site to another. The method is particularly suitable for the production of salt enriched blocks with the required hardness, palatability and weatherability and blocks of up to 1000 kg can be produced. The use of **magnesium sulfate** and reactive **magnesium oxide** as setting agents in (I) allows the production of **feed** blocks of acceptable weatherability and hardness while still allowing the incorporation of a wide range of other additives without compromising the durability of the blocks. The blocks are quick and simple to produce (i.e. simple mixing of ingredients to form a slurry which then sets) without the need for high pressures, heating or pelletizing the product to form a block, and therefore does not require

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high capital expenditure or specialized equipment. The water content of
     the blocks and, hence their properties can be varied by altering the mix
     of additives or by altering the water content. Additionally, the blocks
     produced set very quickly (e.g. blocks containing 30% or less of
     molasses typically set within 3 to 24 hours).
     Dwg.0/0
FS
     CPI
FΑ
     AB
MC
     CPI: D03-G01; D03-G06
     ANSWER 9 OF 31 HCAPLUS COPYRIGHT 2002 ACS
T.96
AN_
     1996:605535 HCAPLUS
DN
     125:246155
TΙ
     Particulate feed supplement
IN
     Steckley, J. David; Jebelian, Varouj
     Maple Leaf Foods Inc., Can.
PΆ
SO
     PCT Int. Appl., 31 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
IC
     ICM A23K001-00
CC
     17-12 (Food and Feed Chemistry)
FAN.CNT 1
     PATENT NO.
                      KIND
                            \mathsf{DATE}
                                           APPLICATION NO.
                                                             DATE
                      ____
                            -----
PΙ
     WO 9625055
                       A1
                            19960822
                                           WO 1996-CA92
                                                             19960216
         W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,
             ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT,
             LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE,
             IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR
     CA 2213219
                       AA
                            19960822
                                           CA 1996-2213219 19960216
     AU 9646178
                       Α1
                            19960904
                                           AU 1996-46178
                                                             19960216
PRAI US 1995-389770
                            19950216
     WO 1996-CA92
                            19960216
AB
     A particulate feed supplement is disclosed which comprises: from
     about 25% to about 90% by wt. of a flavor agent; from 10% to about 75% by
     wt. of a suspending agent; and from about 0.4% to about 4% by wt. of a
     dispersing agent and, optionally, from 0 to about 0.5% by wt. of a wetting
     agent. The particulate feed supplement may be readily converted
     to a feed supplement on-site, thereby obviating transportation
     costs assocd. with conventional liq. feed supplements.
ST
     feed supplement flavoring suspending dispersing agent
IT
     Dispersing agents
     Flavoring materials
     Gums and Mucilages
       Molasses
     Peppermint
       Whey
     Yeast
     Yucca schidigera
        (compn. for particulate feed supplement)
     Bentonite, biological studies
IT
     Clays, biological studies
     Kaolin, biological studies
     Kieselguhr
     Proteins, biological studies
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (compn. for particulate feed supplement)
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1314-13-2, Zinc oxide, biological studies
                                                 1406-16-2, Vitamin D
     1406-18-4, Vitamin E 3486-35-9, Zinc carbonate
                                                        5700-49-2,
     Ethylenediamine dihydroiodide
                                    7439-89-6, Iron, biological studies
     7439-95-4, Magnesium, biological studies 7439-96-5, Manganese,
     biological studies
                         7440-09-7, Potassium, biological studies
     Sodium, biological studies
                                 7440-48-4, Cobalt, biological studies
     7440-50-8, Copper, biological studies
                                             7440-66-6, Zinc, biological
     studies
               7440-70-2, Calcium, biological studies
                                                        7447-39-4, Cupric
     chloride, biological studies
                                    7447-40-7, Potassium chloride, biological
     studies 7487-88-9, Magnesium sulfate,
                          7542-09-8, Cobalt carbonate
     biological studies
                                                        7553-56-2, Iodine,
                          7646-79-9, Cobalt chloride, biological studies
     biological studies
     7646-85-7, Zinc chloride, biological studies
                                                    7647-14-5, Sodium chloride,
     biological studies 7664-38-2, Phosphoric acid
      biological studies
                            7681-11-0, Potassium iodide, biological studies
     7681-65-4, Cuprous iodide
                                7704-34-9, Sulfur, biological studies
     7722-76-1, Monoammonium phosphate
                                         7722-88-5,
                                 7723-14-0, Phosphorus, biological studies 758-16-9 7758-98-7, Copper sulfate,
     Tetrasodium pyrophosphate
     7733-02-0, Zinc sulfate
                               7758-16-9
     biological studies
                          7778-80-5, Potassium sulfate, biological studies
     7782-49-2, Selenium, biological studies 7789-80-2, Calcium iodate
     10102-18-8, Sodium selenite
                                  10124-43-3
                                               11103-57-4, Vitamin A
                                   12001-76-2, Vitamin B
     11129-60-5, Manganese oxide
                                                           12001-79-5, Vitamin
         13410-01-0, Sodium selenate
                                       40816-51-1, Zinc methionine
     181826-79-9
     RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (compn. for particulate feed supplement)
ΙT
     1318-93-0, Montmorillonite, biological studies
                                                      9000-30-0, Guar gum
     11138-66-2, Xanthan gum
                              12174-11-7, Attapulgite
     RL: FFD (Food or feed use); PEP (Physical, engineering or chemical
     process); BIOL (Biological study); PROC (Process); USES (Uses)
        (compn. for particulate feed supplement)
IΤ
     471-34-1, Calcium carbonate, biological
     studies 1305-78-8, Calcium oxide, biological
     studies 1309-48-4, Magnesium oxide,
    biological studies 7487-88-9, Magnesium
     sulfate, biological studies 7664-38-2,
     Phosphoric acid, biological studies 7722-76-1,
    Monoammonium phosphate
    RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)
        (compn. for particulate feed supplement)
     471-34-1 HCAPLUS
RN
CN
    Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)
   0
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- C-– он

Ca

RN 1305-78-8 HCAPLUS CN Calcium oxide (CaO) (9CI) (CA INDEX NAME)

Ca = 0

RN 1309-48-4 HCAPLUS

CN Magnesium oxide (MgO) (9CI) (CA INDEX NAME)

Mg = 0

RN 7487-88-9 HCAPLUS

CN Sulfuric acid magnesium salt (1:1) (8CI, 9CI) (CA INDEX NAME)

Mg

RN 7664-38-2 HCAPLUS

CN Phosphoric acid (7CI, 8CI, 9CI) (CA INDEX NAME)

RN 7722-76-1 HCAPLUS

CN Phosphoric acid, monoammonium salt (8CI, 9CI) (CA INDEX NAME)

ИНЗ

L96 ANSWER 10 OF 31 CABA COPYRIGHT 2002 CABI

AN 96:88265 CABA

DN 961405327

TI Metabolic changes and nutrient repletion in lambs provided with electrolyte solutions before and after **feed** and water deprivation

AU Cole, N. A.

CS Conservation and Production Research Laboratory, ARS, USDA, Bushland, TX 79012, USA.

SO Journal of Animal Science, (1996) Vol. 74, No. 2, pp. 287-294. 32 ref.

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

ISSN: 0021-8812

DT Journal

LA English

Eight crossbred lambs (average body weight 35 kg) were subject to a 10-day AΒ pre-deprivation phase, a 3-day deprivation phase (feed and water withheld) and a 7-day realimentation phase in an  $8 \times 8$  Latin square design. Lambs were fed on a pelleted diet (59% cottonseed hulls, 14% maize, 15% cottonseed meal, 5% lucerne, 5% molasses and 2% minerals/vitamins) 600 g/day before and after the 3-day deprivation phase. During the last 4 days of the deprivation phase lambs were provided ad libitum with deionized water or an electrolyte solution (ES1: sodium chloride, 2.0; potassium carbonate, 2.8; magnesium sulfate, 2.0; amino acid mixture, 0.45 g/10 litre; and phosphoric acid to pH 7.0). During realimentation, lambs were provided with deionized water, ES1, ES2 (twice the concentrations of ES1) or ES3 (sodium chloride 2.0; potassium carbonate, 8.0; magnesium sulfate, 4.0; amino acid mixture from ES1,  $0.\overline{45}$  g/10 litre; and phosphoric acid to pH 7.0). Lambs given ES1 during the pre-deprivation phase had higher sodium, magnesium and zinc retentions during the pre-deprivation phase, higher Na and Mg losses during the deprivation phase, and higher cumulative Na, copper and iron retentions than lambs given deionized water during the pre-deprivation phase. Compared to lambs given water, lambs given ES1 solution during the realimentation phase had higher Na retentions but similar potassium, Mg and water retentions. When the concentration of electrolytes in the solution was doubled (i.e., ES2 solution), Na, K and Mg retentions were higher than those of lambs given deionized water or ES1. The results suggest that as the length or severity of the stress period increases, the concentration of electrolytes in the electrolyte-solution may need to be increased to improve nutrient balance.

CC LL510 Animal Nutrition (Physiology)

BT Ovis; Bovidae; ruminants; Artiodactyla; mammals; vertebrates; Chordata;

CT sodium; magnesium; zinc; copper; iron; water; electrolytes; lambs; deprivation; stress; minerals; water deprivation; solutions; retention; starvation; intake

RN 7440-23-5; 7439-95-4; 7440-66-6; 7440-50-8; 7439-89-6; 7732-18-5 ORGN sheep

L96 ANSWER 11 OF 31 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:532688 HCAPLUS

DN 121:132688

TI Proteins, polysaccharides, and calcium compounds for processed foods

IN Kako, Masatake; Shigematsu, Kanji

PA Meiji Milk Prod Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM A23L001-31 ICS A23L001-325

ICA A23L001-03

CC 17-6 (Food and Feed Chemistry)

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

JP 06133738 A2 19940517 JP 1992-307923 19921023

JP 3124394 B2 20010115

AB Blood proteins, polysaccharides (e.g., cellulose, starch, thickeners which are derived from seaweeds, seeds, microorganisms), and Ca

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LEVY 09/768623 Page 50
      compds. such as CaCl2, CaCO3, Ca(OH)
      2, and Ca phosphate are added to whey proteins
      to give food additives. For example, the additives may be used in
      hamburger and fried foods.
 ST
      protein polysaccharide calcium food additive
 IT
      Food
          (additives for, proteins and polysaccharides and calcium compds. as)
      Polysaccharides, biological studies
 IT
      RL: BIOL (Biological study)
          (food additives contg. proteins and calcium compds. and)
      Proteins, uses
 ΙT
      RL: USES (Uses)
          (of blood, food additives contg. polysaccharides and calcium compds.
          and)
      Whey
 IT
          (proteins of, food additives contq. polysaccharides and calcium compds.
          and)
      9004-34-6, Cellulose, uses
                                     9005-25-8, Starch, biological studies
 ΙT
      RL: USES (Uses)
          (food additives contg. proteins and calcium compds. and)
      471-34-1, Calcium carbonate, biological
      studies 1305-62-0, Calcium hydroxide, uses 7440-70-2, Calcium, biological studies 10043-52-4,
      Calcium chloride, biological studies 10103-46-5
      RL: BIOL (Biological study)
          (food additives contg. proteins and polysaccharides and)
      471-34-1, Calcium carbonate, biological
      studies 1305-62-0, Calcium hydroxide, uses
      10043-52-4, Calcium chloride, biological
      studies
      RL: BIOL (Biological study)
          (food additives contg. proteins and polysaccharides and)
 RN
      471-34-1 HCAPLUS
 CN
      Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)
 HO-C-OH
     Ca
 RN
      1305-62-0 HCAPLUS
 CN
      Calcium hydroxide (Ca(OH)2) (9CI) (CA INDEX NAME)
 {\rm HO^-\,Ca^-\,OH}
 RN
      10043-52-4 HCAPLUS
 CN
      Calcium chloride (CaCl2) (9CI) (CA INDEX NAME)
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Cl-Ca-Cl

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L96 ANSWER 12 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
     1994:434716 BIOSIS
AN
DN
     PREV199497447716
ΤI
     Improving the L-lysine productivity of Brevibacterium sp. P1-13.
ΑU
     Wang, Jyh-Shiou; Cheng, Wen-Ling; Chang, Chun-Chin; Liu, Yao-Tung
CS
     Dep. Biotechnol., Taiwan Sugar Res. Inst. Taiwan
SO
     Report of the Taiwan Sugar Research Institute, (1994) Vol. 0, No. 143, pp.
     51-65.
     ISSN: 0257-5493.
DT
     Article
LA
     Chinese
SL
     Chinese; English
     In order to improve further the L-lysine productivity of Brevibacterium
AB
     sp. P1-13 in raw sugar medium, the optimum conditions of main fermentation
     and feeding culture were investigated. The results revealed that
     increasing the K-2HPO-4 and decreasing the (NH-4)-2SO-4 concentrations
     during seed culture could produce higher L-lysine yield in main
     fermentation by P1-13 strain. In main fermentation, the optimum
     concentrations of molasses total sugar, betaine, K-2HPO-4,
     CaCO-3, citrate, catechol, (NH-4)-2SO-4 , and hydrolysate of plant protein (HPP) were 3%, 10-2M, 0.01%, 1%, 0.02%, 10-4M, 1%, and 5%, respectively.
     After 6 hr in main fermentation, the feeding medium was added at
     a constant rate until 21% total sugar was reached while the concentrations
     of (NH-4)-2SO-4 HPP and molasses total sugar had to be adjusted
     at 3.5%, 6%, and 6%, respectively. Further experiments showed both
     L-lysine productivity and growth rate were significantly stimulated with a
     rise in cultivation temperature and a reduction in the initial
     (NH-4)-2SO-4 concentrations. With a fed-batch cultivation at 35 degree C,
     the L-lysine-HCl concentration within 40 hr approached 9.71%; and based on
     total sugar, yield approached 46.2%. Biochemical Studies - General *10060
CC
     Biochemical Studies - Proteins, Peptides and Amino Acids *10064
     Biochemical Studies - Carbohydrates *10068
     Biochemical Studies - Minerals *10069
     Metabolism - Proteins, Peptides and Amino Acids
     Physiology and Biochemistry of Bacteria *31000
     Microbiological Apparatus, Methods and Media *32000
     Food and Industrial Microbiology - Biosynthesis, Bioassay and Fermentation
     *39007
ВC
     Irregular Nonsporing Gram-Positive Rods
                                                 *08890
IT
     Major Concepts
        Biochemistry and Molecular Biophysics; Bioprocess Engineering;
        Metabolism; Methods and Techniques; Physiology
ΙT
     Chemicals & Biochemicals
        L-LYSINE; P1-13; DIPOTASSIUM HYDROGEN PHOSPHATE; AMMONIUM
        SULFATE; BETAINE; CALCIUM CARBONATE; CITRATE;
        CATECHOL
TT
     Miscellaneous Descriptors
        AMMONIUM SULFATE; BETAINE; CALCIUM CARBONATE;
        CATECHOL; CITRATE; DIPOTASSIUM HYDROGEN PHOSPHATE;
        FEEDING CULTURE; FERMENTATION CONDITIONS; MOLASSES
ORGN Super Taxa
        Irregular Nonsporing Gram-Positive Rods: Eubacteria, Bacteria
ORGN Organism Name
        irregular nonsporing gram-positive rods (Irregular Nonsporing
        Gram-Positive Rods); Brevibacterium sp. (Irregular Nonsporing
        Gram-Positive Rods)
ORGN Organism Superterms
        bacteria; eubacteria; microorganisms
RN
     56-87-1 (L-LYSINE)
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LEVY 09/768623 Page 52
     76-13-1Q (P1-13)
     34273-10-4Q (P1-13)
     49539-88-0Q (P1-13)
     7758-11-4 (DIPOTASSIUM HYDROGEN PHOSPHATE)
     7783-20-2 (AMMONIUM SULFATE)
     107-43-7 (BETAINE)
       471-34-1 (CALCIUM CARBONATE)
     126-44-3 (CITRATE)
     120-80-9Q (CATECHOL)
     154-23-4Q (CATECHOL)
L96 ANSWER 13 OF 31 WPIX (C) 2002 THOMSON DERWENT
     1993-317484 [40] WPIX
DNC C1993-141133
TΙ
     New physiologically active cpd. inhibiting DNA polymerase alpha - is hexyl
     cyclopropyl heptanoic acid cyclic phosphate, useful as
     antitumour agent.
DC
     B03 D16
PΑ
     (MITU) MITSUBISHI KASEI CORP
CYC
PΙ
     JP 05230088
                   A 19930907 (199340)*
                                               13p
                                                       C07F009-6574
     JP 3195833
                   B2 20010806 (200147)
                                               11p
                                                       C07F009-6574
ADT
     JP 05230088 A JP 1992-262478 19920930; JP 3195833 B2 JP 1992-262478
     19920930
FDT
     JP 3195833 B2 Previous Publ. JP 05230088
PRAI JP 1991-252181
                      19910930
     ICM C07F009-6574
         C07F009-09; C12P009-00
ICA
     A61K031-665
ICI
     C12P009-00, C12R001:645
AΒ
     JP 05230088 A UPAB: 19931129
     A physiologically active cpd. of formula (I) is new.
          (I) may be prepd. by incubating a haploid phase myxamoeba of Physarum
     polycephalum MCI 2526 on a medium contg. a bacterium as feed,
     nutrition source (e.g. glucose, starch syrup, dextrin, sucrose, starch,
     molasses, animal or vegetable oil), nitrogen source (e.g. soybean
     flour, wheat embryo, corn steep liquor, cotton
     seed, meat extract, peptone, yeast extract, (NH4)2SO4, NaNO2,
     urea) and mineral releasing Na, K, Ca, Mg, Co, Cl, phosphate, sulphate and other ions at 20-25 deg.C for 4-5 days. Before incubation,
     said organism may be cultured on an agar medium contg. Aerobacter
     aerogenes MCI 2517 (FERM P-11577) as feed. The medium is pref.
     agar medium prepd. (0.7 cm thickness) from 5.0 g glucose, 0.5 g yeast
     extract, 5.0 g bactopeptone, 2.3 g KH2PO4, 1.5 g K2HPO4, 0.5 g
     MgSO4.7H2O, 30 g agar and 1 liter distilled water, on which
     Aerobacter aerogenes MCI 2517as feed is incubated at 24 deg.C
          The prod. may be isolated from the culture broth by extn. with
     solvents (MeOH and MeOH/CHCl3), chromatography on ion exchange resin,
     adsorption or partition column chromatography, preparative thin layer
     chromatography, reverse phase high performance liq. chromatography, gel
     filtration, dialysis, and pptn.
          USE/ADVANTAGE - (I) inhibits DNA polymerase-alpha and is useful as
     anti-tumour agent. In an example, (I) inhibits DNA polymerase-alpha of
     calf thymus at a rate of 90% in a test using activated DNA,
     deoxyribonucleotide triphosphates and tritium-labelled deoxythymidine
     triphosphate. (I) destroyed approx. 100% HeLa cell derived from cervical
     carcinoma at a conc. of 0.5-1 micro g/ml.
     Dwq.0/0
     CPI
FS
```

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FΑ
     AB; GI; DCN
MC
     CPI: B05-B01M; B12-G01B2; B12-G07; D05-A02; D05-C
L96 ANSWER 14 OF 31 WPIX (C) 2002 THOMSON DERWENT
     1993-160951 [20]
                        WPIX
DNC
     C1993-071036
ΤI
     Prodn. of L-isoleucine - by culture of Escherichia microorganism having
     resistance to an isoleucine analogue.
DC
     B05 D16 E16
ΙN
     KINO, K; KURATSU, Y
     (KYOW) KYOWA HAKKO KOGYO CO LTD; (KYOW) KYOWA HAKKO KOGYO KK
PΑ
CYC
                A2 19930519 (199320)* EN
PΙ
                                               7p
                                                     C12P013-06
         R: DE FR GB IT
     JP 05130882
                   A 19930528 (199326)
                                                     C12P013-06
                   A
     CA 2082347
                      19930512 (199330)
                                                     C12P013-06
     HU 63657
                   Τ
                      19930928 (199344)
                                                     C12P013-06
                   A 19941108 (199444)
     US 5362637
                                               4p
                                                     C12P013-06
     EP 542487
                   A3 19940406 (199522)
                                                     C12P013-06
     EP 542487
                   B1 19980902 (199839)
                                        EN
                                                     C12P013-06
         R: DE FR GB IT
     DE 69226844
                   Ε
                     19981008 (199846)
                                                     C12P013-06
                   В
     HU 216332
                      19990628 (199931)
                                                     C12P013-06
     KR 9616135
                   B1 19961204 (199931)
                                                     C12P013-06
     JP 3036930
                  B2 20000424 (200025)
                                                     C12P013-06
     CA 2082347
                      20020528 (200249)
                   С
                                        EN
                                                     C12P013-06
ADT EP 542487 A2 EP 1992-310184 19921106; JP 05130882 A JP 1991-294420
     19911111; CA 2082347 A CA 1992-2082347 19921106; HU 63657 T HU 1992-3542
     19921111; US 5362637 A US 1992-973452 19921109; EP 542487 A3 EP
     1992-310184 19921106; EP 542487 B1 EP 1992-310184 19921106; DE 69226844 E
     DE 1992-626844 19921106, EP 1992-310184 19921106; HU 216332 B HU 1992-3542
     19921111; KR 9616135 B1 KR 1992-21067 19921111; JP 3036930 B2 JP
     1991-294420 19911111; CA 2082347 C CA 1992-2082347 19921106
    DE 69226844 E Based on EP 542487; HU 216332 B Previous Publ. HU 63657; JP
     3036930 B2 Previous Publ. JP 05130882
PRAI JP 1991-294420
                      19911111
REP No-SR.Pub; 5.Jnl.Ref; EP 213536; EP 356739; FR 2491495; JP 02042988; JP
     53069881
IC
     ICM C12P013-06
     ICS C12N001-20; C12P001-04
ICI
    C12N001-20, C12R001:19; C12N001-20, C12R001:19; C12N001-20, C12R001:19;
          C12P013-06, C12P013:08; C12P013-06, C12R001:19
AB
           542487 A UPAB: 19931113
     (A) L-isoleucine (I) is produced by culturing in a medium a microorganism
     of the genus Escherichia having resistance to an isoleucine analogue and
     an ability to produce (I).
          (B) Biologically pure cultures of E. coli H-8271 (FERM BP-3626),
     H-8272 (FERM BP-3627), H-8273 (FERM BP-3628), H-8285 (FERM BP-3629) and
     H-8362 (FERM BP-3630) are new.
          USE - (I) plays a nutritiously important role for humans and animals
     and is used for medicaments such as aminoacid prepns. foods and animal
     feeds.
          In an example, E. coli H-8285 was cultured at 30 deg.C. in a
     seed medium of 2% glucose, 1% peptone, 1% yeast extract, 0.25%
     NaCl, 200mg/l diamino pimelic acid for 16 hrs. at pH 7.4 with shaking.
     Then 0.5 ml. of the seed culture was inoculated into 20 ml. of
     fermentation medium pH 8.0 (6% glucose, 1-6% ammonium sulphate, 0.1%
     KH2PO4, 100mg/l. DL-methionine, 300mg/l diamino pimelic acid, 0.2%
     corn steep liquor, 4% magnesium phosphate, 1%
     CaCO3) and cultured with shaking at 30 deg.C. for 72 hrs. to give
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LEVY 09/768623 Page 54
     12.5q/l of L-isoleucine and 0.2 q/l of L-threonine.
     Dwg.0/0
FS
     CPI
FΑ
     AB; DCN
MC
     CPI: B10-B02J; D05-C01; D05-H04; E10-B02D6
    ANSWER 15 OF 31 WPIX (C) 2002 THOMSON DERWENT
AN
     1993-086811 [11]
                        WPIX
DNC
    C1993-038239
TΙ
     Riboflavin prodn. by fermentation, used in medicine and as food additive -
     using mutant strains of Bacillus subtilis having reduced
    de-phosphorylating activity for GMP 5'-guanylic acid precursor.
DC
     B02 D13 D16 E13 E23
ΙN
     NAKAMATU, T; USUI, N; YAMAMOTO, Y
PA
     (AJIN) AJINOMOTO KK; (AJIN) AJINOMOTO CO INC
CYC
    5
    EP 531708
                  A2 19930317 (199311) * EN
PΙ
                                                     C12P025-00
        R: DE FR IT
     JP 05064597
                  A 19930319 (199317)
                                               5p
                                                     C12P025-00
                  A 19940802 (199430)
    US 5334510
                                                     C12P025-00
                                               4p
    EP 531708
                  A3 19940406 (199522)
                                                     C12P025-00
    EP 531708
                  B1 19970402 (199718)
                                        EN
                                               5p
                                                     C12P025-00
        R: DE FR IT
    DE 69218700
                  E 19970507 (199724)
                                                     C12P025-00
                  B2 19991115 (199954)
     JP 2979767
                                               5p
                                                     C12P025-00
ADT EP 531708 A2 EP 1992-113274 19920804; JP 05064597 A JP 1991-227864
     19910909; US 5334510 A US 1992-942191 19920909; EP 531708 A3 EP
     1992-113274 19920804; EP 531708 B1 EP 1992-113274 19920804; DE 69218700 E
    DE 1992-618700 19920804, EP 1992-113274 19920804; JP 2979767 B2 JP
     1991-227864 19910909
FDT DE 69218700 E Based on EP 531708; JP 2979767 B2 Previous Publ. JP 05064597
PRAI JP 1991-227864
                    19910909
REP No-SR.Pub; BE 890917; FR 2204687; FR 2546907; US 4165250
IC
     ICM C12P025-00
     ICS C12N001-20
ICI C12P025-00, C12R001:125; C12P025-00, C12R001:1
           531708 A UPAB: 19931122
AB
     Prodn. comprises (a) culturing, in a liq. fermentation medium, a mutant
    strain of the genus Bacillus, which has a decreased phosphoric
    acid liberating activity from 5'-guanylic acid (5'-GMP), and has
     riboflavin producing ability; (b) accumulating riboflavin in the medium
    and (c) recovering the riboflavin.
          Also claimed are B. subtilis strains FERM BP-3855 and BP-3856.
          USE/ADVANTAGE - Riboflavin is used in medicine, and as a food
    additive and colouring. The organisms used in the new process have
     improved riboflavin prodn. capabity and at higher concn. compared to-prior-
    art microorganisms, providing an efficient, inexpensive, fermentation
    route to riboflavin.
    Dwg.0/0
    CPI
FS
FΑ
    AB; DCN
    CPI: B03-C; B04-B02B1; B12-J01; D03-H01E; D03-H02E; D05-C10; D05-H01;
          E06-D17; E11-M
L96
    ANSWER 16 OF 31 HCAPLUS COPYRIGHT 2002 ACS
    1989:619139 HCAPLUS
DN
ΤI
    Anticalculus dentifrices containing blocked poly(amino acids) as
     inhibitors for mineral crystal growth on the tooth surface
ΙN
    Sikes, Steven; Wheeler, A. P.
```

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LEVY 09/768623 Page 56
ΙT
     Peptides, biological studies
     RL: BIOL (Biological study)
        (phosphohomoserine-contg., anticalculus dentifrices contg.)
     Peptides, biological studies
ΙT
     RL: BIOL (Biological study)
        (phosphoserine-contg., anticalculus dentifrices contg.)
     Peptides, biological studies RL: BIOL (Biological study)
TT
        (phosphothreonine-contg., anticalculus dentifrices contg.)
     Peptides, biological studies
TΤ
     RL: BIOL (Biological study)
        (phosphotyrosine-contg., anticalculus dentifrices contg.)
     Polyamides, biological studies
     RL: BIOL (Biological study)
        (poly(amino acids), block, anticalculus dentifrices contg., as
        mineralization inhibitors)
IT
     Peptides, biological studies
     RL: BIOL (Biological study)
        (valine-contg., anticalculus dentifrices contg.)
IT
     123690-47-1
                    123690-48-2
                                  123690-49-3
                                                 123757-44-8
     RL: BIOL (Biological study)
        (anticalculus dentifrices contg.)
IT
     123690-43-7
                    123690-44-8
                                  123690-45-9
                                                 123690-46-0
     RL: BIOL (Biological study)
        (calcium carbonate crystn. inhibition by)
ΙT
     471-34-1, Calcium carbonate, properties
     RL: PRP (Properties)
        (crystn. of, inhibition of, blocked poly(amino acids) for)
     10103-46-5, Calcium phosphate
IT
     RL: BIOL (Biological study)
        (mineralization of, inhibition of, blocked poly(amino acids) for)
TT
     471-34-1, Calcium carbonate, properties
     RL: PRP (Properties)
        (crystn. of, inhibition of, blocked poly(amino acids) for)
RN
     471-34-1 HCAPLUS
CN
     Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)
   \bigcirc
HO-C-OH
    Ca
L96 ANSWER 17 OF 31 HCAPLUS COPYRIGHT 2002 ACS
AN
     1987:532990 HCAPLUS
DN
     107:132990
```

```
ΤI
     Influence of feed ion content on buffering capacity of ruminant
     feedstuffs in vitro
ΑU
     Jasaitis, D. K.; Wohlt, J. E.; Evans, J. L.
CS
     Cook Coll., Rutgers, State Univ., New Brunswick, NJ, 08903, USA
SO
     J. Dairy Sci. (1987), 70(7), 1391-403
     CODEN: JDSCAE; ISSN: 0022-0302
DT
     Journal
LA
     English
CC
     17-12 (Food and Feed Chemistry)
```

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The in vitro buffering capacity of 52 feeds was measured to det.
AB
     the buffering capacity range within and among feed types.
     Feeds were analyzed for dry matter, total ash, minerals (Ca, Mg,
     K, Na, Cl, N, P, Si, S), pH, titratable acidity and alky., acid-buffering
     capacity, and base-buffering capacity (milliequivalents of acid or base
     required to bring 0.5 g dry matter suspended in 50 mL distd. deionized
     water to pH 4 or 9, resp., divided by total pH change). Buffering
     capacity was lowest for energy feeds, intermediate for low
     protein feeds (15 to 35% crude protein) and grass forages, and
     highest for high protein feeds (<35% crude protein) and legume
     forages. The concept of diet formulation for a predetd. buffering
     capacity was tested. Two isonitrogenous and isocaloric diets
     substantially different from each other in buffering capacity were
     formulated using ingredients from the pool of 52 feeds. The
     measured acid-buffering capacity of these diets was similar to their
     predicted values. Acid buffering capacity was correlated with total
     cations and total ash. However, simple linear regression was not
     sufficient to predict accurately acid-buffering capacity from total ash
     values. Further studies are needed to provide a better est. of
     feed-buffering capacity.
ST
     buffer capacity feed cation mineral element
ΙT
     Feed
        (buffering capacity of, mineral elements effect on)
ΙT
     Soybean
        (hulls, mineral elements of, feed buffer capacity in relation
        to)
IT
     Barley
     Bone meal
     Bran
     Bromus
       Cottonseed meal
     Grass
     Legume
     Oat
     Orchard grass
     Rye
     Sorghum
     Soybean meal
     Sunflower meal
     Timothy
     Vinasse and Distillery slops
     Wheat
        (mineral elements of, feed buffer capacity in relation to)
TΤ
     Anions
     Cations
     Mineral elements
     RL: BIOL (Biological study)
        (of feed, buffering capacity in relation to)
TT
     Buffer action
        (of mineral elements in feed)
TΨ
     Citrus
        (pulp, mineral elements of, feed buffer capacity in relation
        to)
TΤ
     Hay
        (alfalfa, mineral elements of, feed buffer capacity in
        relation to)
IT
     Waste solids
        (brewing, spent grains, mineral elements of, feed buffer
        capacity in relation to)
```

```
- LEVY 09/768623 Page 58
 ΙT
      Plant
          (forage, mineral elements of, feed buffer capacity in
 ΙT
      Alfalfa
          (hay, mineral elements of, feed buffer capacity in relation
         to)
 TT
      Corn
          (hominy, mineral elements of, feed buffer capacity in
         relation to)
 IT
      Alfalfa
      Corn
      Fish
      Flaxseed
      Meat
          (meal, mineral elements of, feed buffer capacity in relation
 ΙT
      Beet
          (pulp, mineral elements of, feed buffer capacity in relation
 TΤ
      57-13-6, Urea, biological studies
                                             144-55-8, Sodium bicarbonate,
      biological studies 471-34-1, biological studies
      Disodium phosphate 7558-80-7, Monosodium phosphate
      7757-93-9, Dicalcium phosphate
                                         7758-87-4, Tricalcium
                   13397-26-7, Calcite, biological studies 14791-73-2,
      phosphate
      Aragonite
      RL: BIOL (Biological study)
          (feed additive, feed buffering capacity in relation
 TΨ
      7439-95-4, Magnesium, biological studies
                                                    7440-09-7, Potassium,
                           7440-21-3, Silicon, biological studies
      biological studies
                                                                         7440 - 23 - 5,
      Sodium, biological studies 7440-70-2, Calcium, biological studies 7704-34-9, Sulfur, biological studies 7723-14-0, Phosphorus, biological
                7727-37-9, Nitrogen, biological studies
      studies
                                                             16887-00-6, Chloride,
      biological studies
      RL: BIOL (Biological study)
          (of feed, buffering capacity in relation to)
 ΙT
      471-34-1, biological studies
      RL: BIOL (Biological study)
          (feed additive, feed buffering capacity in relation
         to)
 RN
      471-34-1 HCAPLUS
 CN
      Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME)
     0
 HO- C- OH
     Ca
```

```
L96 ANSWER 18 OF 31 HCAPLUS COPYRIGHT 2002 ACS
AN 1986:513969 HCAPLUS
DN 105:113969
TI High montmorillonite content stock feed supplement
IN Kingston, David John; Whatmore, William Leigh
PA Australia
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LEVY 09/768623 Page 59
      Pat. Specif. (Aust.), 28 pp.
      CODEN: ALXXAP
 DT
      Patent
      English
 LA
 IC
      A23K011-75
      17-12 (Food and Feed Chemistry)
      Section cross-reference(s): 18, 63
 FAN.CNT 1
      PATENT NO.
                         KIND DATE
                                               APPLICATION NO.
                                                -----
      -----
                         ----
                               _____
      AU 548773
                        B1 19860102
                                               AU 1984-36231
                                                                  19841203
    _ A feed_supplement (granules or pellets) for carbohydrate
      overload prevention contains montmorillonite clays at 20-99.9% (hectorite,
      saponite, bentonite, nontronite, zeolite, or combinations) and 0.1-80% of
      additives (binders, minerals, vitamins, enzymes, drugs, etc.). Thus, a supplement for horses contained Na bentonite 30, hectorite 35, saponite
      28, CaCO3 5.0, folic acid 0.07, papain 0.5, maltose 0.25,
      amylase 0.25, cellulose 0.25, protease 0.04, and anise seed flavor 0.64%. This compn. is offered at 75 g/horse/day.
 ST
      montmorillonite supplement feed livestock
 ΙT
      RL: BIOL (Biological study)
          (alfalfa conc., feed supplement contg. montmorillonite and)
 ΙT
      Binding materials
      Enzymes
      Limestone, biological studies
      Mineral elements
        Phosphates, biological studies
      Vitamins
      RL: BIOL (Biological study)
          (feed supplement contg. montmorillonite and)
 TT
      Cattle
      Dog
      Horse
      Ruminant
      Sheep
      Swine
          (feed supplement for, montmorillonite-contg.)
 TΤ
      Bentonite, biological studies
      Smectite-group minerals
      Zeolites, biological studies
      RL: BIOL (Biological study)
          (feed supplements contg.)
 IT
      Molasses
          (livestock supplement contg. montmorillonite and)
      Feed
 TT
          (montmorillonite-contg. supplements for)
 TT
          (prodn. of, montmorillonite-contg. feed supplement for
         enhancement of)
 TT
      Anise
          (seed, flavor, feed supplement contg.
         montmorillonite and)
 TT
      Alfalfa
          (hay, binder, for montmorillonite-contg. feed supplements)
 IT
      Bentonite, biological studies
      RL: BIOL (Biological study)
          (sodian, feed supplement contq.)
      Pharmaceuticals
          (veterinary, feed supplement contg. montmorillonite and)
```

LEVY 09/768623 Page 60 56-87-1, biological studies 59-30-3, ΙT 57-13-6, biological studies biological studies 63-68-3, biological studies 471-34-1, biological studies 546-93-0 **1309-48-4**, biological studies 7487-88-9, biological studies 7647-14-5, biological studies 7723-14-0, biological studies 7783-20-2, biological studies 9000-30-0 9001-92-7 9000-92-4 9001-42-7 9001-73-4 9012-54-8 RL: BIOL (Biological study) (feed supplement contg. montmorillonite and) 1318-93-0, biological studies IT 1319-41-1 12173-47-6 12174-06-0 15501-74-3 RL: BIOL (Biological study) (feed supplements contg.) 471-34-1, biological studies 1309-48-4, biological studies 7487-88-9, biological studies RL: BIOL (Biological study) (feed supplement contg. montmorillonite and) RN471-34-1 HCAPLUS CN Carbonic acid calcium salt (1:1) (8CI, 9CI) (CA INDEX NAME) - OH Ca RN 1309-48-4 HCAPLUS CN Magnesium oxide (MgO) (9CI) (CA INDEX NAME) Mg=== 0 7487-88-9 HCAPLUS RN Sulfuric acid magnesium salt (1:1) (8CI, 9CI) (CA INDEX NAME) CN OH 0

Mq

L96 ANSWER 19 OF 31 HCAPLUS COPYRIGHT 2002 ACS 1984:529450 HCAPLUS AN DN 101:129450 TΙ Animal **feed** block Graham, Clifford Arthur; Linehan, Kevin Laurence IN ICI Australia Ltd. , Australia PA Brit. UK Pat. Appl., 11 pp. CODEN: BAXXDU

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DT
     Patent
LA
    English
TC
    A23K001-02; A23K001-175
     18-7 (Animal Nutrition)
     Section cross-reference(s): 17
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
     ______
                     ____
                           _____
                  A1
    GB 2131273
                           19840620
                                          GB 1983-32609
                                                           19831207
                      В2
    GB 2131273
                           19860618
                     A1
    AU 8321997
                           19840614
                                          AU 1983-21997
                                                           19821207
    AU 563082 B2 19870625
CA 1206368 A1 19860624
                                          CA 1983-442743 19831207
                           19860624
PRAI AU 1982-7161
                           19821207
    AU 1982-7185
                           19821208
    An animal feed block is prepd. by mixing molasses,
    MgO, and legume seed. Thus, 2300 parts molasses
    was mixed with 3200 parts lupine seed, heated to 60.degree., and
    blended with 750 parts MgO, 400 parts dicalcium
    phosphate, and 400 parts cottonseed meal. Agitation was
    continued and 300 parts NaCl, 200 parts anhyd. Na2SO4, and 130 parts trace
     elements were added. The viscosity was lowered by adding 700 parts urea
     [57-13-6], 400 parts water, and 25 parts surfactant agent. Then 12 parts
    of an alc.-ethylene oxide condensate and an addnl. 1195 parts
    molasses were added and the mixt. was held at 70.degree. until it
    solidified.
    molasses animal feed block; magnesium
    oxide animal feed block; lupine animal feed
    block
IT
    Feed
        (block, prepn. of, from molasses and magnesium
        oxide and lupine seed)
ΙT
        (feeding expt. on, with molasses feed
       block)
TΤ
    Molasses
        (in animal feed block prepn., with magnesium
        oxide and legume seed)
IT
    Cottonseed meal
    Trace elements
    RL: PREP (Preparation)
        (in animal feed block prepn., with molasses and
       magnesium oxide and legume seed)
IT
    Legume
    Lupine
        (seed, in animal feed block prepn. with
       molasses and magnesium oxide)
    1309-48-4, biological studies
    RL: BIOL (Biological study)
        (in animal feed block prepn., with molasses and
        legume seed)
IT
     57-13-6, biological studies
                                 107-92-6, biological studies
     RL: BIOL (Biological study)
        (in animal feed block prepn., with molasses and
       magnesium oxide and legume seed)
ΙT
     75-21-8D, alc. condensate
                                7647-14-5, biological studies 7757-82-6,
    biological studies
                         7757-93-9
     RL: BIOL (Biological study)
        (in animal feed block prepn., with molasses and
       magnesium oxide and legumeseed)
```

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ΙT
     1309-48-4, biological studies
     RL: BIOL (Biological study)
        (in animal feed block prepn., with molasses and
        legume seed)
RN
     1309-48-4 HCAPLUS
CN
    Magnesium oxide (MgO) (9CI) (CA INDEX NAME)
Mq = 0
    ANSWER 20 OF 31 HCAPLUS COPYRIGHT 2002 ACS
     1985:4710 HCAPLUS
ΑN
     102:4710
DN
     Studies on the development of food resources from waste seeds.
TΙ
     V. Chemical composition of watermelon seed
    Yoon, Hyung Sik; Kwon, Joong Ho; Hwang, Joo Ho; Bae, Man Jong
ΑU
CS
    Dep. Food Sci. Technol., Kyung Pook Natl. Univ., S. Korea
SO
    Han'guk Yongyang Siklyong Hakhoechi (1983), 12(3), 207-11
    CODEN: HYSHDL; ISSN: 0253-3154
DT
     Journal
LA
    Korean
CC
     17-13 (Food and Feed Chemistry)
AΒ
    The use of watermelon seeds as a source of food fats and protein
     was studied. Watermelon seeds contained 40% crude fat and
     28.36% crude protein. The lipid fraction obtained by silicic acid column-
    chromatog. was composed of .apprx.97.35% neutral lipid, and the main
     components of neutral lipid by TLC were triglycerides (50.40%),
    diglycerides (21.84%), and sterols (11.48%). The predominant fatty acids
    of total and major lipid classes were linoleic acid (55.30-67.85%),
    palmitic acid (12.07-28.12\%), and oleic acid (9.06-16.40\%), whereas
    stearic acid and linolenic acid were detected at small amts. The
    salt-sol. protein of watermelon seeds was highly dispersible in
    0.02M Na phosphate buffer contg. .apprx.0.7M MgSO4,
    and the extractability of seed protein was .apprx.27%.
    Glutamic acid and arginine were the major amino acids,
    and essential amino acids, such as lysine, threonine, valine, methionine,
    isoleucine, leucine, and phenylalanine, were also detected.
    Electrophoretic anal. showed 6 bands in watermelon seed protein,
    and the collection rate of the main protein fraction purified by Sephadex
    G-100 and G-200 was 52.4%. The amino acids of the main fraction protein
    were also mainly composed of glutamic acid and
    arginine. The mol. wt. for the main protein of the water-melon
    seed was estd. to be 120,000.
    watermelon seed fat protein food; fatty acid watermelon
    seed food; amino acid watermelon seed food
TT
    Seed
        (lipid and protein of, of watermelon, as food)
    Amino acids, biological studies
    Fatty acids, biological studies
    Lipids, biological studies
    Proteins
    RL: BIOL (Biological study)
        (of watermelon seed, as food)
IT
    Watermelon
        (seed of, lipids and proteins of, for food)
ΙT
        (watermelon seed lipids and proteins as)
ΙT
     Amino acids, biological studies
```

L96 ANSWER 22 OF 31 HCAPLUS COPYRIGHT 2002 ACS
AN 1983:452122 HCAPLUS
DN 99:52122
TI Studies on the development of food resources from waste seeds.
II. Chemical composition of apple seed
AU Yoon, Hyung Sik; Choi, Cheong; Oh, Man Jin
CS Dep. Food Sci. Technol., Kyung-Pook Natl. Univ., Daegu, S. Korea

- LEVY 09/768623 Page 64 SO Hanguk Sikp'um Kwahakhoe Chi (1983), 15(2), 128-32 CODEN: HSKCAN; ISSN: 0367-6293 DT Journal LA Korean 17-10 (Food and Feed Chemistry) CC Section cross-reference(s): 11 AΒ Apple seeds contained 25.96% crude fat and 37.62% crude protein. The lipid fractions obtained by silicic column chromatog. were mainly composed of .apprx.93.52% neutral lipid, with compd. lipids at the 6.48% level. Among the neutral lipids sepd. by thin layer chromatog., triglycerides was 92.17%, sterol esters, sterols, diglycerides, and free fatty acids were 3.53, 2.25, 1.44, and 0.56%, resp. The predominant fatty acids of total and neutral lipids were linoleic acid (59.79-69.37%) and oleic acid (20.04-29.82%), but that of glycolipids and phospholipids was linoleic acid (29.20-36.04%). The major fatty acids of triglycerides sepd. from neutral lipids were oleic acid (44.31%), linoleic acid (36.66%), and palmitic acid (12.48%). The salt-sol. protein of apple seed was highly dispersible in 0.02M Na phosphate buffer contg. .apprx.1.0M MgSO4, and the extractability of seed protein was 37%. **Glutamic acid** was the major amino acid in salt-sol. protein, followed by arginine and aspartic acid. Electrophoretic anal. showed 3 bands in apple seed protein, and the collection rate of the main protein fraction purified by Sephadex G-100 and G-200 was 76.6%. Glutamic acid, aspartic acid, and arginine were the major amino acids of the main apple seed protein. The mol. wt. for the main protein of the apple seed was estd. to be 45,000. ST apple seed lipid protein; glyceride apple seed; fatty acid apple seed Fatty acids, biological studies TΤ
- Glycerides, biological studies Glycolipids Lipids, biological studies Phospholipids Proteins

RL: BIOL (Biological study)

(of apple seeds, food applications in relation to)

Apple

(seed, lipids and proteins of, food applications in relation to)

ΙT Steroids, biological studies RL: BIOL (Biological study)

(hydroxy, of apple seeds, food applications in relation to)

- L96 ANSWER 23 OF 31 HCAPLUS COPYRIGHT 2002 ACS
- AN 1983:486869 HCAPLUS
- DN 99:86869

TΤ

- TΙ Studies on the development of food resources from waste seeds. IV. Chemical composition of red pepper seed
- Yoon, Hyung Sik; Kwon, Joong Ho; Bae, Man Jong; Hwang, Joo Ho ΑU Dep. Food Sci. Technol., Kyungpook Natl. Univ., Taegu, S. Korea CS
- Han'quk Yongyang Siklyong Hakhoechi (1983), 12(1), 46-50 CODEN: HYSHDL; ISSN: 0253-3154
- DT Journal
- LA Korean
- CC 17-10 (Food and **Feed** Chemistry)
- AB Red pepper seeds contained 27.6% crude fat and 22.2% crude protein. The lipid fractions obtained by silicic acid column chromatog. contained 95.4% neutral lipid and compd. lipid 4.6%. Among the neutral lipid sepd. by thin layer chromatog., triglyceride was 85.6%, sterol ester

4.9%, free fatty acids 3.4%, diglyceride 2.5%, sterol 2.2% and monoglyceride 1.1%. The predominant fatty acids of red pepper seed oil were linoleic acid (57.1-75.4%), palmitic acid (13.9-21.3%) and oleic acid (8.0-15.1%). The glycolipids contained 1.7% of linolenic acid and small amts. of myristic acid and arachidic acid. The salt sol. protein of red pepper seed was highly dispersible in 0.02M Na phosphate buffer contg. 1.0M MgSO4, and the extractability of seed protein was about 25.0%. Glutamic acid and arginine were major amino acids of red pepper seed protein. Electrophoretic anal. showed 6 bands and the collection rate of the main protein fraction purified by Sephadex G-100 and G-200 was >62.2%. Glutamic acid (19.9%) was the major amino acid of the main protein, followed by glycine and alanine. The mol. wt. of the main protein was 93,000. STred pepper seed compn; protein red pepper seed; lipid red pepper seed; fatty acid red pepper seed ITFatty acids, biological studies Glycerides, biological studies Glycolipids Lipids, biological studies Proteins RL: BIOL (Biological study) (of red pepper seed, food value in relation to) ΙT Steroids, biological studies RL: BIOL (Biological study) (hydroxy, of red pepper seed, food value in relation to) ΙT Capsicum annuum annuum (longum group, seeds of, compn. of, food value in relation L96 ANSWER 24 OF 31 HCAPLUS COPYRIGHT 2002 ACS 1982:614489 HCAPLUS ΑN DN 97:214489 TΙ Studies on the development of food resources from waste seeds. I. Chemical composition of grape seed Yoon, Hyung Sik; Kwon, Joong Ho; Choi, Jae Chun; Hwang, Joo Ho; Shin, Dae AU CS Coll. Agric., Kyungpook Natl. Univ., Taegu, S. Korea SO Hanguk Sikp'um Kwahakhoe Chi (1982), 14(3), 250-6 CODEN: HSKCAN; ISSN: 0367-6293 DT Journal LA Korean CC 17-9 (Food and **Feed** Chemistry) AB Grape seed contained 25.1% crude fat and 12.0% crude protein. The lipid fractions obtained by silicic acid column chromatog. were 95.5% neutral lipid, whereas complex lipid was only 4.5%. Triglyceride was 91.89%, and sterol ester, sterol, diglyceride and free fatty acid were 3.24%, 2.87%, 1.20% and 0.80% of neutral lipids, resp. The predominant fatty acids of total and neutral lipids were linoleic acid (69.72-71.72%) and oleic acid (18.09-19.46%), but those of glycolipid and phospholipid were linoleic acid (31.49-38.18%), oleic acid (20.20-35.27%) and palmitic acid (26.80-39.98%). The major fatty acids of triglyceride sepd. from neutral lipid were oleic acid (43.08%), linoleic acid (38.42%) and palmitic acid (11.60%). The salt sol. protein of grape seed was highly dispersible in 0.02M Na phosphate buffer contg. .apprx.1.0M MgSO4, and the extractability of seed protein was 31%. Glutamic acid was the major amino

acid in salt sol. protein, followed by arginine and aspartic acid. Electrophoretic anal. showed 3 bands in grape **seed** protein, and

the collection rate of the main protein fraction purified by Sephadex

## . LEVY 09/768623 Page 66 G-100 and G-200 was 82%. Glutamic acid, aspartic acid and arginine were the major amino acids of the main grape seed protein. The mol. wt. for the main protein of the grape seed was estd. to be 81,000. ST grape seed lipid protein Amino acids, biological studies Fatty acids, biological studies ΙT Glycerides, biological studies Lipids, biological studies Oils Proteins RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence) \_ \_ - -(of grape seed) ΙΤ Grape (seeds of, lipids and proteins of) ΙT Steroids, biological studies RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence) (hydroxy, of grape seed) ANSWER 25 OF 31 WPIX (C) 2002 THOMSON DERWENT L96 ΑN 1981-40057D [22] WPIX Thixotropic animal feed supplement carrier - for water insoluble TIfeed nutrient powder consists of sugar soln. gelled with ammonium phosphate or sulphate. DC C03 D13 (PACI-N) PACIFIC KENYON CORP PΑ CYC A 19810512 (198122)\* ΡI US 4267197 PRAI US 1978-917472 19780621; US 1979-93903 19791113 IC A23K001-22 4267197 A UPAB: 19930915 AΒ The feed supplement consists of a 12% by wt. sugar soln. gelled with ammonium orthophosphate or sulphate at pH 6.5 to 7.5 and water insoluble powdered feed nutrient with the viscosity of the final product being adjusted to 4,000 to 10,000 cps by the addition of water. The water insoluble nutrient may be 2 to 20% by wt. of the composition and consists of one or more of calcium carbonate, calcium sulphate, and calcium phosphate of 100 to 325 mesh particle size. An animal growth promoter such as 0.02 to 0.15% wt. monensin. Suitable sugars include sucrose, glucose, lactose, maltose, fructose, molasses, dried skimmed milk and lignin sulphonates. Other ingredients may be included such as dried blood, meat meal, cottonseed meal, soy meal, dried alfalfa, manure, fish meal, powdered egg and cell cream. The composition may be stored for long periods without deterioration. FS CPI FΑ AB CPI: CO2-N; CO4-BO4A; CO4-DO1; CO5-AO1B; CO5-BO2A2; CO5-CO1; C10-A13C; MC C12-L09; D03-G01 ANSWER 26 OF 31 WPIX (C) 2002 THOMSON DERWENT 1980-74015C [42] ΑN WPIX Antibiotic A 40 A prodn. - by culturing Streptomyces Lavendulae TI aerobically on medium contg. carbohydrate source. DC B03 C02 D13 D16 (KITA) KITASATO RES INST; (MERI) MERCK & CO INC CYC 2

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LEVY 09/768623 Page 67
    JP 55076874
                  A 19800610 (198042)*
PΙ
                  A 19810428 (198120)
    US 4264607
     JP 62021790
                  B 19870514 (198723)
PRAI US 1978-955553
                     19781027; US 1979-74202
    A23K001-17; A61K001-17; A61K031-44; C07D405-12; C12P017-16; C12R001-56
    JP 55076874 A UPAB: 19930902
AΒ
     Prodn. of new antibiotic material (A 40 A) comprises aerobically culturing
    Streptomyces lavendulae (ATCC 31312) at a temp. 24-32 degrees C in a
     culture medium having pH 6.0-8.0 which contains assimilable carbohydrate
     source (e.g. dextrose, glucose, arabinose, maltose, xylose or mannitol), N
     source (e.g. yeast extract, hydrolysis prod. of yeast extract, enzyme
     itself, soyabean powders, cotton seed powders,
    hydrolysis prod. of casein or corn steep liquor) and
     source of inorganic salt (e.g. NaCl, CaCO3, CaSO4
     .7H2O, KHSO4, K dihydrogen phosphate or disodium hydrogen
    phosphate).
```

Liquor produced is filtered and extracted with an aq. immiscible polar solvent (e.g. (m)ethyl formate, (m)ethyl acetate, n-butyl-acetate, isobutyl-acetate, ethyl-propionate, MFK, cyclohexanone, chloroform, methylene chloride, CCl4, ethylene dichloride, tetrachloro-ethylene or ethylene dichloride), whereby antibiotic material (A 40 A) having structural formula (I) is obtd. where the pyran in the formula has a steric configuration in its asymmetric centre.

19790913

(I) has a microbicidal effect on Gram positive bacteria and it is used as an additive to cattle feed.

FS CPI

FAΆB

CPI: B02-Z; B12-L09; C02-Z; C12-L09; D03-G01; D05-C02 MC

L96 ANSWER 27 OF 31 HCAPLUS COPYRIGHT 2002 ACS

1980:213744 HCAPLUS ΑN

92:213744 DN

TIAnimal feed blocks

Linehan, Kevin Laurence ΙN

PΑ ICI Australia Ltd., Australia

S. African, 38 pp. SO

CODEN: SFXXAB

DT Patent

LA English

A23J; A23K IC

17-5 (Foods) CC

FAN.CNT 2

2.20.000.1				
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI ZA 7805845	A	19791031	ZA 1978-5845	19781017
US 4234608	Α	19801118	US 1978-951954	19781016
CA 1109793	A1	19810929	CA 1978-315615	19781031
PRAI AU 1977-2259		19771101		

Feed blocks contq. molasses, nutrients, and(or) medications are hardened with MgO and CaHPO4. The general process involves heating a H2O-bearing medium to 45-80.degree. while agitating with a cavitation mixer or ribbon blender, adding MgO and CaHPO4 and mixing until uniform at <90.degree., blending in medications or nutrients, and transferring to molds and placing in an air circulating oven to keep the blocks at 55-90.degree. until rigid. The molds are cooled to ambient temp. and the blocks are released. Thus, a high-Mg block was prepd. from molasses 54, active MgO 11, CaHPO4 10, Fifield magnesia flour 12.5, salt 9, H2O 3, and trace elements 0.5%. The mixing temp. was 65.degree., and the oven time was .apprx.2 h. Addnl. formulations are given for high-Mg, high-

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LEVY 09/768623 Page 68
      phosphate, high-protein, and high-salt blocks.
 ST
      feed block magnesia; calcium phosphate feed
      block
 ΙT
      Feed
          (block, hardening of, with dicalcium phosphate and
         magnesium oxide)
 IT
      Cottonseed meal
      Peanut meal
      Soybean meal
      Wheat
        Whey
      Tallow
      Trace-elements -
      Vitamins
      RL: BIOL (Biological study)
          (of feed block hardened with dicalcium phosphate
          and magnesium oxide)
 ΙT
      Meat
      Millet
      Rice
          (meal, of feed block hardened with dicalcium
         phosphate and magnesium oxide)
 IT
      1309-48-4, biological studies
      RL: BIOL (Biological study)
          (feed block hardening with dicalcium phosphate and)
 ΙT
      7757-93-9
      RL: BIOL (Biological study)
          (feed block hardening with magnesium oxide
 IT
      50-70-4, biological studies
                                     50-99-7, biological studies
                                                                    57-13-6,
                            57-48-7, biological studies
                                                          57-50-1, biological
      biological studies
               64-19-7, biological studies 108-19-0
                                                          546-93-0
      1305-62-0, biological studies
                                      4401-74-5
                                                   6104-30-9
                                                                7647-14-5,
      biological studies 7722-76-1
                                    7757-82-6, biological studies
      7757-93-9
                  7758-87-4 7786-30-3, biological studies
                                                             13547-17-6
      19082-42-9 23296-15-3
                               28100-23-4
      RL: BIOL (Biological study)
          (of feed block hardened with dicalcium phosphate
          and magnesium oxide)
 ΙT
      1309-48-4, biological studies
      RL: BIOL (Biological study)
          (feed block hardening with dicalcium phosphate and)
 RN
      1309-48-4 HCAPLUS
 CN
      Magnesium oxide (MgO) (9CI) (CA INDEX NAME)
 Mq = 0
      1305-62-0, biological studies 7722-76-1
      7786-30-3, biological studies 23296-15-3
      RL: BIOL (Biological study)
          (of feed block hardened with dicalcium phosphate
          and magnesium oxide)
 RN
      1305-62-0 HCAPLUS
 CN
      Calcium hydroxide (Ca(OH)2) (9CI) (CA INDEX NAME)
```

HO-Ca-OH

RN 7722-76-1 HCAPLUS

CN Phosphoric acid, monoammonium salt (8CI, 9CI) (CA INDEX NAME)

NH3

RN 7786-30-3 HCAPLUS

CN Magnesium chloride (MgCl2) (9CI) (CA INDEX NAME)

Cl-Mg-Cl

RN 23296-15-3 HCAPLUS

L96 ANSWER 28 OF 31 CABA COPYRIGHT 2002 CABI

AN 80:78130 CABA

DN 791487476

TI Role of balanced **feeds** in rearing of carp in warm water Rol' sbalansirovannosti korma pri vyrashchivanii karpa na teplykh vodakh

AU Ostroumova, I. N.

SO Rybnoe Khozyaistvo, Moscow, (1978) No. 12, pp. 24-26.

DT Journal

LA Russian

AB Five diets are described for rearing carp: diet 1-75 consisting of fish meal 18, meat-and-bone meal 8, fodder yeast 20, sunflower phosphatides 3, sunflower oilmeal 12, soya bean oilmeal 7, rolled wheat 10, rolled barley 10, rolled oats 8, molasses 2, inorganic phosphate 1, CaCO3 1% and vitamins; diet 16-76, the same as diet 1-75 except that it lacked sunflower phosphatides; diet 12-75 (for young carp) containing fish meal 50, meat-and-bone meal 11, fodder yeast 10, sunflower phosphatides 3, sunflower oilmeal 3, rolled wheat 20 and molasses 3% plus vitamins; diet Vr. 112-Tul. 3, with sunflower oilmeal 3, cottonseed oilmeal 27, sunflower [press] cake 9, wheat bran 20, rolled barley 10, rolled oats 10, rolled peas 20, CaCO3 1%; diet K110-nov, with fodder yeast 2, soya bean oilmeal 7, sunflower cake 26, wheat bran 19, rolled wheat 7.9, rolled barley 10, rolled oats 6.6, rolled peas 20, CaCO3 0.5 and a premix P-III [not described] 1.0%. Young and 1-year-old carp were kept in ponds at 500 and 210/m2, respectively. Average water temperature was 26 deg to 30 deg C in June, 29 deg to 30 deg in July, 28 deg to 33 deg in August, 28 deg to 19 deg in September and 19 deg to 18 deg in October. Water oxygen concentration normally was 5 to 7 mg/litre. The protein in diet Vr. 112-Tul. 3 was low in lysine, methionine, tryptophan and arginine. For the yearlings fed on diets 1-75 stored for 1 to 4 months, 16-76 stored for 1 to 4 weeks, 1 to 75 stored for 8 to 12 weeks; 16-76 stored for 8 to 12 weeks and Vr.112-Tul. 3 stored for 1 to 4 weeks the final bodyweights were 898, 867, 647, 563 and 153 g from the initial values of 68, 72, 65, 68 and 65 g. That gave yields of 188, 170, 122, 106 and 30 kg/m2 pool. Efficiency ratio [feed eaten:gain] was 2.1, 2.1, 3.3, 3.6 and 12:1. The carp less

than a year old and weighing initially 0.5 g ate diets 12-75 or K110-nov each stored for 1 to 4 weeks. Bodyweight at end of trial was 102 and 20 g. Analysis of blood showed no significant difference between the different diets.

CC MM120 Aquaculture (Animals)

ST carp feeding; balanced feeds; warm water

L96 ANSWER 29 OF 31 HCAPLUS COPYRIGHT 2002 ACS DUPLICATE 2

1978:73407 HCAPLUS ΑN

DN 88:73407

TΙ Performance of steers fed crop residues supplemented with nonprotein nitrogen, minerals, protein and monensin

AU. Oltjen, R. R.; Dinius, D. A.; Goering, H. K.

CS

Nutr. Inst., ARS, Beltsville, Md., USA J. Anim. Sci. (1977), 45(6), 1442-52 SO CODEN: JANSAG; ISSN: 0021-8812

DT Journal

LA English

CC 18-3 (Animal Nutrition)

Research was conducted to test nonprotein N (NPN)-protein supplements in a AΒ mineral mixt. for growing steers fed crop residues ad libitum. Supplements contg. 7.5% NaCl, 10% dicalcium phosphate, 2.5% K2CO3, 2% MgSO4, 1% elemental S plus trace minerals, molasses and corn meal were readily consumed when combined with N sources to formulate 100% crude protein equiv. (CPE) mixts. Cottonseed hulls were readily consumed (3.1% of body wt. (BW)/day), but chopped straw (2.0% BW) and corn stover (1.4% BW) were very poorly consumed. Increasing N intake by the steers markedly increased cottonseed hull intake. Type of supplement and cottonseed hull intake (percent BW) were as follows: neg. control (no supplemental nitrogen source), 2.2% restricted 50% crude protein soybean meal control, 2.7%; and 100% CPE supplements fed free choice, 3.1%. Growing steers gained an av. of 0.54 kg daily during 140-day trials when fed cottonseed hulls free choice plus either biuret [108-19-0] or urea [57-13-6] 100% CPE supplements. Replacing 20% of the NPN with fish meal or soybean meal N increased gains by 20%. Treating the soybean meal protein with 0.6% H2CO did not improve steer performance. Ruminal NH3 concns. averaged 10-20 mg NH3-N/100 mL of ruminal fluid for steers fed the 100% CPE supplements. Monensin [17090-79-8] addn. to the supplement resulted in a 1.9 acetate/propionate ratio compared to a 5.0 ratio for control steers but reduced supplement and cottonseed hull intake and steer performance.

STcattle feed protein substitute; mineral nitrogen feed cattle

IΤ Cattle

> (feeding expt. on, with minerals, proteins and protein substitutes)

IT Soybean meal

Straw

(feeding expt. with, on cattle)

IT Proteins

RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)

(feeding expt. with, on cattle)

ΙT Mineral elements

> RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)

(feeding expt. with, on cattle, proteins and protein substitutes in relation to)

ΙT Cottonseed

The carcass grades were also improved; the controls had a grading score of

glycerides of animal or vegetable fat did not significantly respond with increased milk production, whereas cows receiving a comparable amt. of free fatty acids of tall oil or soybean oil showed marked increase in milk

2.81 and the treated group 2.69. Lactating dairy cows receiving

ST cows lactation feeds; lactation cows feeds;

production.

1

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L24
     ANSWER 4 OF 7 USPATFULL
AN
       96:85133 USPATFULL
       Epoxysuccinic acid derivatives
TI
IN
       Tsubotani, Shigetoshi, Kawanishi, Japan
       Masayuki, Takizawa, Kobe, Japan
       Mikio, Shirasaki, Nishinomiya, Japan
       Fujisawa, Yukio, Kobe, Japan
       Takeda Chemical Industries, Ltd., Osaka, Japan (nor-U.S. corporation)
PA
PΙ
       US 5556853
                               19960917
       US 1994-330833
                               19941027 (8)
ΑI
PRAI
       JP 1993-272806
                           19931029
       JP 1993-272835
                           19931029
       -JP 1994-186165- --- -- 19940808 -
DT
       Utility
FS
       Granted
LN.CNT 4712
       INCLM: 514/231.500
INCL
       INCLS: 514/227.800; 514/252.000; 514/475.000; 544/584.000; 544/146.000;
              544/147.000; 544/374.000; 549/548.000; 549/549.000
NCL
       NCLM:
              514/231.500
       NCLS:
              514/227.800; 514/254.100; 514/475.000; 544/058.400; 544/146.000;
              544/147.000; 544/374.000; 549/548.000; 549/549.000
IC
       ICM: A61K031-535
       ICS: C07D413-12
       544/147; 544/374; 549/548; 549/549; 514/231.5
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       ANSWER 5 OF 7 EUROPATFULL COPYRIGHT 2002 WILA
L24
PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET
       1213027 EUROPATFULL ED 20020619 EW 200224 FS OS
AN
       Liver function protecting or improving agent.
TIEN
TIDE
       Mittel fuer den Schutz oder die Verbesserung der Leberfunktion.
TIFR
       Agent pour la protection ou l'amelioration de la fonction hepatique.
ΤN
       Nakagiri, Ryusuke, Tsukuba Research Laboratories, Kyowa Hakko Kogyo Co.,
       Ltd., 2, Miyukigaoka, Tsukuba-shi, Ibaraki 305-0841, JP;
       Kamiya, Toshikazu, Tsukuba Research Laboratories, Kyowa Hakko Kogyo Co.,
       Ltd., 2, Miyukigaoka, Tsukuba-shi, Ibaraki 305-0841, JP;
       Hashizume, Erika, Tsukuba Research Laboratories, Kyowa Hakko Kogyo
       Co., Ltd, 2, Miyukiqaoka, Tsukuba-shi, Ibaraki 305-0841, JP;
       Sakai, Yasushi, Foods & Liquors Research Lab., Kyowa Hakko Koqyo Co.,
       Ltd., 4041, Ami, Ami-machi, Inashiki-gun, Ibaraki 300-0398, JP;
       Kayahashi, Shun, Tsukuba Research Laboratories, Kyowa Hakko Kogyo Co.,
       Ltd., 2, Miyukigaoka, Tsukuba-shi, Ibaraki 305-0841, JP
       KYOWA HAKKO KOGYO CO., LTD., 6-1, Ohtemachi 1-chome, Chiyoda-ku, Tokyo
PA
       100-8185, JP
       Wila-EPZ-2002-H24-T1b
SO
       R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE;
DS
       R IT; R LI; R LU; R MC; R NL; R PT; R SE; R TR; R AL; R LT; R LV; R MK;
       R RO; R SI
       EPA2 EUROPAEISCHE PATENTANMELDUNG
PIT
PΙ
       EP 1213027
                            A2 20020612
OD
                               20020612
       EP 2001-129254
                               20011211
ΑI
       JP 2000-2000375510
                               20001211
PRAI
       ICM A61K035-78
IC
                                          A61P001-16
       ICS A23L001-00
                           A23L002-00
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L24

ANSWER 6 OF 7 EUROPATFULL COPYRIGHT

IN	Tsubotanı, Shigetoshi, 23-5, Tadain 2-chome, wawawishi, hyogo occidi, JP;
	Takizawa, Masayuk 1-1-709, Shinoharaobanoyamacho chome, Nada-ku,
200	Kobe, Hyogo 675, W.
	Shirasaki, Mikio, 1-6-101, Minamikoshien 3-chome, Nishinomiya, Hyogo
	663, JP;
	Fujisawa, Yukio, 1-31-104, Mikagenakamachi 4-chome, Higashinada-ku,
	Kobe, Hyogo 658, JP
PA	Takeda Chemical Industries, Ltd., 1-1 Doshomachi 4-chome, Chuo-ku,
	Osaka-shi, Osaka 541, JP
so	Wila-EPZ-1995-H22-T1a
DS	R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R IE; R IT; R LI;
	R LU; R NL; R PT; R SE
PIT	EPA1 EUROPAEISCHE PATENTANMELDUNG
PI	EP 655447 A1 19950531
OD	19950531
ΑI	EP 1994-307984 19941028
PRAI	JP 1993-272806 19931029
	- ЈР 1993-272835
	JP 1994-186165 19940808
IC	ICM C07D303-48
	ICS C07D405-12 A61K031-335

## PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 655447 EUROPATFULL ED 19991212 EW 199522 FS OS STA B

TIEN Epoxysuccinic acid derivatives.

TIDE Derivate der Epoxybernsteinsaeure.

TIFR Derives de l'acide epoxysuccinique.

```
=> s 11 and cow and (milk fever or urinary calculi)
            10 L1 AND COW AND (MILK FEVER OR URINARY CALCULI)
=> d 1 - 10
'-' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ignore
'IGNORE' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files. - Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT): end
=> d 126 1-10
L26 ANSWER 1 OF 10 USPATFULL
       2002:185317 USPATFULL
AN
       Flowable cottonseed and method for its preparation
TТ
       Summer, Paul, Oskaloosa, IA, UNITED STATES
IN
       Yamamoto, Koryu, Ottumwa, IA, UNITED STATES
       Ajinomoto U.S.A., Inc., New York, NY, UNITED STATES, 10020 (U.S.
PA
       corporation)
       US 2002098226
                          A1
                               20020725
PΙ
                         A1
                               20010125 (9)
ΑI
       US 2001-768623
DT
       Utility
FS
       APPLICATION
LN.CNT 499
       INCLM: 424/438.000
INCL
NCL
       NCLM: 424/438.000
IC
       [7]
       ICM: A23K001-18
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L26 ANSWER 2 OF 10 USPATFULL
ΑN
       2002:85564 USPATFULL
       Esters of vitamin D3 and uses thereof
TI
       Reddy, Satyanarayana G., Barrington, RI, UNITED STATES
IN
       Sasso, Gino John, Rutherford, NJ, UNITED STATES
       US 2002045606
                          A1
                                20020418
PΤ
                                20001201 (9)
       US 2000-728933
                          A1
ΑI
                           19991202 (60)
       US 1999-168588P
PRAI
DT
       Utility
FS
       APPLICATION
LN.CNT 2191
INCL
       INCLM: 514/167.000
       INCLS: 552/653.000
       NCLM:
             514/167.000
NCL
       NCLS: 552/653.000
TC
       [7]
       ICM: A61K031-593
       ICS: C07C401-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L26 ANSWER 3 OF 10 USPATFULL
       2001:110025 USPATFULL
AN
       3-EPI COMPOUNDS OF VITAMIN D3 AND USES THEREOF
ΤI
       REDDY, SATYANARAYANA G., BARRINGTON, RI, United States
IN
```

```
USKOKOVIC, MILAN, UPPER MONTCLAIR, NJ, United States
       WOMEN AND INFANTS HOSPITAL (U.S. corporation)
PA
                               20010712
PΙ
       US 2001007907
                          Α1
                               19980515 (9)
       US 1998-80026
                          Α1
ΑI
       US 1997-46643P
                           19970516 (60)
PRAI
DT
       Utility
       APPLICATION
FS
LN.CNT 3161
       INCLM: 552/653.000
INCL
       NCLM: 552/653.000
NCL
IC
       [7]
       ICM: C07C041-00
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L26 ANSWER 4 OF 10 USPATFULL
AN
       2000:125089 USPATFULL
       Cyclic ether vitamin D3 compounds and uses thereof
ΤI
       Reddy, Satayanarayana G., Barrington, RI, United States
IN
       Woman and Infants Hospital, Providence, RI, United States (U. B.
PA
       corporation)
                                20000919
       US 6121312
PΙ
       US 1999-410223
                                19990930 (9)
AΙ
       Division of Ser. No. US 1998-79942, filed on 15 May 1998
RLI
       US 1997-46690P
                           19970516 (60)
PRAI
DT
       Utility
FS
       Granted
LN.CNT 2438
       INCLM: 514/451.000
INCL
       INCLS: 549/416.000; 549/417.000; 549/356.000; 549/428.000; 514/460.000
              514/451.000
NCT.
       NCLM:
             514/460.000; 549/356.000; 549/416.000; 549/417.000; 549/428.000
       NCLS:
       [7]
IC
       ICM: A61K031-351
       ICS: C07D309-04
       514/451; 514/460; 549/356; 549/416; 549/417; 552/653
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L26 ANSWER 5 OF 10 USPATFULL
       2000:102327 USPATFULL
AN
       Cyclic ether vitamin D3 compounds, 1.alpha.(OH) 3-epi-vitamin D3
ΤI
       compounds and uses thereof
       Reddy, Satayanarayana G., Barrington, RI, United States
IN
       Women and Infants Hospital, Providence, RI, United States (U.S.
PΑ
       corporation)
       US 6100294
                                20000808
PΤ
       US 1998-79942
                                19980515 (9)
ΑI
                            19970516 (60)
       US 1997-46690P
PRAI
DT
       Utility
FS
       Granted
LN.CNT 2551
       INCLM: 514/451.000
INCL
       INCLS: 514/460.000; 549/416.000; 552/653.000
NCL
       NCLM:
             514/451.000
       NCLS: 514/460.000; 549/416.000; 552/653.000
IC
       [7]
       ICM: A61K031-35
       ICS: C07C401-00; C07D309-04
       549/416; 514/460; 514/451; 552/653
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 6 OF 10 USPATFULL
1.26
       2000:9897 USPATFULL
AN
```

3-EPI vitamin D.sub.2 compounds and uses thereof ΤI Reddy, Satayanarayana G., Barrington, RI, United States IN Women and Infants Hospital, Providence, RI, United States (U.S. PΑ corporation) 20000125 US 6017908 PΙ 19980515 (9) US 1998-79838 ΑI 19970516 (60) US 1997-46641P PRAI  $\mathsf{D}\mathbf{T}$ Utility FS Granted LN.CNT 2353 INCLM: 514/167.000 INCL INCLS: 552/653.000 NCLM: 514/167.000 NCLS: 552/653.000 NCL

IC

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           12 L22 AND GLUTAMIC ACID
L25
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L25 ANSWER 1 OF 12 USPATFULL
       2002:205917 USPATFULL
AN
       Liver function protecting or improving agent
ΤI
       Nakagiri, Ryusuke, Tsukuba-shi, JAPAN
Kamiya, Toshikazu, Tsukuba-shi, JAPAN
IN
       Hashizume, Erika, Tsukuba-shi, JAPAN
       Sakai, Yasushi, Inashiki-gun, JAPAN
Kayahashi, Shun, Tsukuba-shi, JAPAN
PI- — US 2002110605- A1 - 20020815
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       US 2001-10154
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                                20011210 (10)
ΑI
                            20001211
       JP 2000-375510
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DT
       Utility
       APPLICATION
FS
LN.CNT 1786
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INCL
NCL
       NCLM: 424/725.000
IC
       [7]
       ICM: A61K035-78
L25 ANSWER 2 OF 12 USPATFULL
       2002:185317 USPATFULL
AN
ΤI
       Flowable cottonseed and method for its preparation
       Summer, Paul, Oskaloosa, IA, UNITED STATES
IN
       Yamamoto, Koryu, Ottumwa, IA, UNITED STATES
       Ajinomoto U.S.A., Inc., New York, NY, UNITED STATES, 10020 (U.S.
PA
       corporation)
                                 20020725
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PΙ
       US 2002098226
                                 20010125 (9)
ΑI
       US 2001-768623
                           A1
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Utility

DT

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L25 ANSWER 4 OF 12 USPATFULL
       96:85133 USPATFULL
AN
       Epoxysuccinic acid derivatives
ΤI
       Tsubotani, Shigetoshi, Kawanishi, Japan
IN
      Masayuki, Takizawa, Kobe, Japan
      Mikio, Shirasaki, Nishinomiya, Japan
       Fujisawa, Yukio, Kobe, Japan
       Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)
PΑ
                               19960917
       US 5556853
PΙ
                               19941027 (8)
       US 1994-330833
ΑI
                           19931029
       JP 1993-272806
PRAI
                           19931029
       JP 1993-272835
       JP-1994-186165-- ---19940808------
       Utility
DT
       Granted
FS
LN.CNT 4712
       INCLM: 514/231.500
INCL
       INCLS: 514/227.800; 514/252.000; 514/475.000; 544/584.000; 544/146.000;
              544/147.000; 544/374.000; 549/548.000; 549/549.000
              514/231.500
NCL
       NCLM:
              514/227.800; 514/254.100; 514/475.000; 544/058.400; 544/146.000;
       NCLS:
              544/147.000; 544/374.000; 549/548.000; 549/549.000
IC
       [6]
       ICM: A61K031-535
       ICS: C07D413-12
       544/147; 544/374; 549/548; 549/549; 514/231.5
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 5 OF 12 USPATFULL
L25
       95:6020 USPATFULL
AN
       Batch process for fatty acid alkaline earth metal salt production
TI
       Vinci, Alfredo, Dayton, NJ, United States
IN
       Cummings, Kenneth R., Skillman, NJ, United States
       Lajoie, M. Stephen, Basking Ridge, NJ, United States
       Church & Dwight Co., Inc., Princeton, NJ, United States (U.S.
PA
       corporation)
                               19950117
       US 5382678
PΙ
                               19940804 (8)
       US 1994-285432
ΑI
       Continuation of Ser. No. US 1993-77090, filed on 16 Jun 1993, now
RLI
       abandoned
DT
       Utility
       Granted
FS
LN.CNT 331
       INCLM: 554/156.000
INCL
       INCLS: 426/072.000; 426/074.000; 426/656.000; 426/658.000; 426/807.000
       NCLM: 554/156.000
NCL
       NCLS: 426/072.000; 426/074.000; 426/656.000; 426/658.000; 426/807.000
IC
       ICM: A23K001-00
       554/156; 426/72; 426/74; 426/656; 426/658; 426/807
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L25 ANSWER 6 OF 12 USPATFULL
AN
       89:92484 USPATFULL
       Combinations having synergistic growth hormone releasing activity and
ΤI
       methods for use thereof
       Bowers, Cyril Y., New Orleans, LA, United States
ΙN
       Momany, Frank A., Concord, MA, United States
       Chang, Ching H., Kingsport, TN, United States
       Cody, Wayne, Kingsport, TN, United States
       Hubbs, John C., Gray, TN, United States
```

```
Foster, Charles H., Kingsport, TN, United States
       Eastman Kodak Company, Rochester, NY, United States (U.S. corporation)
PΑ
                               19891114
       US 4880778
PΙ
                               19870410 (7)
       US 1987-37275
ΑI
       Continuation-in-part of Ser. No. US 1986-861968, filed on 12 May 1986,
RLI
       now abandoned
DT
       Utility
       Granted
FS
LN.CNT 2539
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INCL
NCL
       NCLM:
             514/012.000
TC
       [4]
       ICM: H61K037-43
EXF = -514/12
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
   ANSWER 7 OF 12 USPATFULL
L25
       72:42842 USPATFULL
AN
       NUTRIENT RATION FOR INCREASING GROWTH OF LIVESTOCK AND POULTRY
ΤI
       Hamada, Yoshio, Tokyo, Japan
IN
       Yoshino, Motohisa, Suita, Japan
       Takeda Chemical Industries, Ltd., Osaka, Japan
PA
                               19720822
PΙ
       US 3686392
       US 1966-523047
                               19660126 (4)
AΤ
                           19650127
       JP 1965-4763
PRAI
       JP 1965-6096
                           19650203
       Utility
DТ
FS
       Granted
LN.CNT 671
       INCLM: 424/016.000
INCL
       INCLS: 099/002.000G; 424/180.000; 099/004.000
              424/442.000
NCL
       NCLS: 514/047.000; 514/048.000; 514/051.000; 514/052.000
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IC
       ICM: A23K001-00
       099/140N; 099/2; 099/2G; 099/4; 099/16; 099/9; 195/28N
EXF
       ANSWER 8 OF 12 EUROPATFULL COPYRIGHT
                                                2002 WILA
L25
PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET
       1213027 EUROPATFULL ED 20020619 EW 200224 FS OS
AN
       Liver function protecting or improving agent.
TIEN
       Mittel fuer den Schutz oder die Verbesserung der Leberfunktion.
TIDE
       Agent pour la protection ou l'amelioration de la fonction hepatique.
TIFR
       Nakagiri, Ryusuke, Tsukuba Research Laboratories, Kyowa Hakko Kogyo Co.,
IN
       Ltd., 2, Miyukigaoka, Tsukuba-shi, Ibaraki 305-0841, JP;
        Kamiya, Toshikazu, Tsukuba Research Laboratories, Kyowa Hakko Kogyo Co.,
        Ltd., 2, Miyukigaoka, Tsukuba-shi, Ibaraki 305-0841, JP;
        Hashizume, Erika, Tsukuba Research Laboratories, Kyowa Hakko Kogyo
        Co., Ltd, 2, Miyukigaoka, Tsukuba-shi, Ibaraki 305-0841, JP;
        Sakai, Yasushi, Foods & Liquors Research Lab., Kyowa Hakko Kogyo Co.,
        Ltd., 4041, Ami, Ami-machi, Inashiki-gun, Ibaraki 300-0398, JP;
        Kayahashi, Shun, Tsukuba Research Laboratories, Kyowa Hakko Kogyo Co.,
        Ltd., 2, Miyukigaoka, Tsukuba-shi, Ibaraki 305-0841, JP
        KYOWA HAKKO KOGYO CO., LTD., 6-1, Ohtemachi 1-chome, Chiyoda-ku, Tokyo
 PA
        100-8185, JP
        Wila-EPZ-2002-H24-T1b
 SO
        R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE;
 DS
        R IT; R LI; R LU; R MC; R NL; R PT; R SE; R TR; R AL; R LT; R LV; R MK;
        R RO; R SI
        EPA2 EUROPAEISCHE PATENTANMELDUNG
 PIT
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PI OD	EP 1213027	A2 20020612 20020612	,
AI PRAI	EP 2001-129254 JP 2000-2000375510	20011211 20001211	\ /
IC	ICM A61K035-78 ICS A23L001-00	A23L002-00	A61P001-16
L25	ANSWER 9 OF 12 EUR	OPATFULL COPYF	RIGHT 2002 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 1186293 EUROPATFULL ED 20020321 EW 200211 FS OS
TIEN Intermittent administration of a growth hormone secretagogue.
-TIDE Intermittierende Verabreichung eines Wachstumshormon-

sekretionsfoerderers.

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FS
       Granted
LN.CNT 749
       INCLM: 424/442.000
INCL
NCL
       NCLM: 424/442.000
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IC
       ICM: A23K001-18
EXF
       424/442
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L23 ANSWER 9 OF 12 USPATFULL
       95:16234 USPATFULL
AN
       Process for production of high purity fatty acid salt products
ΤI
       Vinci, Alfredo, Dayton, NJ, United States
ΙN
   Forrest, Ronald L., Cranbury, NJ, United States
       Church & Dwight Co., Inc., Princeton, NJ, United States (U.S.
PΑ
       corporation)
PΙ
       US 5391787
                               19950221
ΑI
      US 1993-52264
                               19930423 (8)
DT
      Utility
FS
       Granted
LN.CNT 571
INCL
       INCLM: 554/156.000
       INCLS: 424/074.000; 424/807.000
       NCLM: 554/156.000
NCL
      NCLS: 426/074.000; 426/807.000
ΙC
       ICM: C07C051-00
       426/74; 554/156; 554/807
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
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L23 ANS

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23
   ANSWER 6 OF 12 USPATFULL
       97:101501 USPATFULL
AN
       Extruded animal feed nuggets for ruminants
ΤI
       Lanter, Kent J., Waterloo, IL, United States
ΤN
       Weakley, David C., Eureka, MO, United States
       Purina Mills, Inc., St. Louis, MO, United States (U.S. corporation)
PΑ
PΙ
       US 5683739
                               19971104
ΑI
       US 1996-680710
                                19960711 (8)
       Division of Ser. No. US 1995-421234, filed on 13 Apr 1995, now patented,
RLI
       Pat. No. US 5540932
DT
       Utility
FS
       Granted
LN.CNT 734
      INCLM: -426/623.000
TNCT --
       INCLS: 426/656.000; 426/608.000; 426/516.000; 426/807.000; 424/438.000;
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NCL
              426/623.000
       NCLM:
              424/438.000; 424/442.000; 426/516.000; 426/608.000; 426/656.000;
       NCLS:
              426/807.000
IC
       [6]
       ICM: A23K001-18
       ICS: A23K001-16
       426/623; 426/656; 426/608; 426/516; 426/807; 424/438; 424/442
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
   ANSWER 7 OF 12 USPATFULL
L23
       96:85133 USPATFULL
AN
TΙ
       Epoxysuccinic acid derivatives
IN
       Tsubotani, Shigetoshi, Kawanishi, Japan
       Masayuki, Takizawa, Kobe, Japan
       Mikio, Shirasaki, Nishinomiya, Japan
       Fujisawa, Yukio, Kobe, Japan
PA
       Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)
PΙ
       US 5556853
                               19960917
ΑI
       US 1994-330833
                               19941027 (8)
       JP 1993-272806
                           19931029
PRAI
       JP 1993-272835
                           19931029
       JP 1994-186165
                           19940808
DT
       Utility
       Granted
LN.CNT 4712
INCL
       INCLM: 514/231.500
       INCLS: 514/227.800; 514/252.000; 514/475.000; 544/584.000; 544/146.000;
              544/147.000; 544/374.000; 549/548.000; 549/549.000
NCL
       NCLM:
              514/231.500
              514/227.800; 514/254.100; 514/475.000; 544/058.400; 544/146.000;
       NCLS:
              544/147.000; 544/374.000; 549/548.000; 549/549.000
IC
       [6]
       ICM: A61K031-535
       ICS: C07D413-12
       544/147; 544/374; 549/548; 549/549; 514/231.5
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L23 ANSWER 8 OF 12 USPATFULL
       96:67756 USPATFULL
AN
       Extruded animal feed nuggets for ruminants
TI
       Lanter, Kent J., Waterloo, IL, United States
IN
       Weakley, David C., Eureka, MO, United States
PA
       Purina Mills, Inc., St. Louis, MO, United States
                               19960730
PΙ
       US 5540932
                               19950413 (8)
       US 1995-421234
ΑI
       Utility
DT
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=> s 19 and cow
             94 L9 AND COW
L22
=> s 110 and cow
             12 L10 AND COW
L23
=> s lll and cow
               7 L11 AND COW
=> d 1-7
L24 ANSWER 1 OF 7 USPATFULL
-AN- ---- 2002:-205917 -- USPATFULL --
        Liver function protecting or improving agent
ΤI
        Nakagiri, Ryusuke, Tsukuba-shi, JAPAN
Kamiya, Toshikazu, Tsukuba-shi, JAPAN
IN
        Hashizume, Erika, Tsukuba-shi, JAPAN
        Sakai, Yasushi, Inashiki-gun, JAPAN
        Kayahashi, Shun, Tsukuba-shi, JAPAN
        US 2002110605 A1 20020815
PΙ
                             A1
                                    20011210 (10)
        US 2001-10154
ΑI
        JP 2000-375510
                              20001211
PRAI
\mathtt{DT}
        Utility
        APPLICATION
FS
LN.CNT 1786
INCL
        INCLM: 424/725.000
NCL
        NCLM: 424/725.000
IC
        [7]
        ICM: A61K035-78
L24 ANSWER 2 OF 7 USPATFULL AN 2002:185317 USPATFULL
ΤI
        Flowable cottonseed and method for its preparation
        Summer, Paul, Oskaloosa, IA, UNITED STATES Yamamoto, Koryu, Ottumwa, IA, UNITED STATES
IN
```

PΑ

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L21 ANSWER 2 OF 6 USPATFULL
ΑN
       2002:185317 USPATFULL
ΤI
       Flowable cottonseed and method for its preparation
       Summer, Paul, Oskaloosa, IA, UNITED STATES
IN
       Yamamoto, Koryu, Ottumwa, IA, UNITED STATES
       Ajinomoto U.S.A., Inc., New York, NY, UNITED STATES, 10020 (U.S.
PA
       corporation)
                               20020725
ΡI
       US 2002098226
                          Αl
       US 2001-768623
                          A1
                               20010125 (9)
ΑI
DT
       Utility
FS
       APPLICATION
LN.CNT 499
INCL- -INCLM: 424/438.000
       NCLM: 424/438.000
NCL
TC
       [7]
       ICM: A23K001-18
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 3 OF 6 USPATFULL
AN
       91:100392 USPATFULL
TI
       Use of methylsulfonylmethane to enhance diet of an animal
       Herschler, Robert J., 3206 NW. Second Ave., Camas, WA, United States
IN
       US 5071878
                                19911210
PΙ
       US 1991-654856
                               19910206 (7)
AΙ
       Continuation-in-part of Ser. No. US 1990-564946, filed on 9 Aug 1990
RLI
       which is a division of Ser. No. US 1989-385117, filed on 26 Jul 1989,
       now patented, Pat. No. US 4973605 which is a division of Ser. No. US
       1986-878948, filed on 26 Jun 1986, now patented, Pat. No. US 4863748
       which is a continuation-in-part of Ser. No. US 1985-727989, filed on 29
       Apr 1985, now patented, Pat. No. US 4616039 Ser. No. Ser. No. US
       1984-601771, filed on 17 Apr 1984, now patented, Pat. No. US 4559329
       Ser. No. Ser. No. US 1984-584354, filed on 28 Feb 1984, now patented,
       Pat. No. US 4568547 And Ser. No. US 1982-418110, filed on 14 Sep 1982,
       now patented, Pat. No. US 4514421 , each which is a continuation-in-part
       of Ser. No. US 1981-277592, filed on 26 Jun 1981, now patented, Pat. No.
       US 4477469 which is a division of Ser. No. US 1979-71068, filed on 6 Aug
       1979, now patented, Pat. No. US 4296130
DΤ
       Utility
FS
       Granted
LN.CNT 1458
       INCLM: 514/711.000
INCL
       NCLM: 514/711.000
NCL
IC
       [5]
       ICM: A61K031-10
       514/711; 426/72
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 4 OF 6 USPATFULL
L21
       90:25800 USPATFULL
AN
       Use of Methylsulfonylmethane to treat parasitic infections
ΤI
       Herschler, Robert J., 3080 N.W. 8th Ave., Camas, WA, United States
IN
       98607
PI 🧳
       US 4914135
                               19900403
       US 1989-385116
                               19890726 (7)
ΑI
       Division of Ser. No. US 1987-878948, filed on 26 Jun 1987, now patented,
RLI
       Pat. No. US 4863748 which is a continuation-in-part of Ser. No. US
       1985-727989, filed on 29 Apr 1985, now patented, Pat. No. US 4616039
       Ser. No. Ser. No. US 1984-601771, filed on 17 Apr 1984, now patented,
       Pat. No. US 4559329 Ser. No. Ser. No. US 1984-589354, filed on 18 Feb
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1984, now patented, Pat. No. US 4568547 And Ser. No. US 1982-418110,

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filed on 14 Sep 1982, now patented, Pat. No. US 4514921 which is a
       continuation-in-part of Ser. No. US 1981-277592, filed on 26 Jun 1981,
       now patented, Pat. No. US 4477469 which is a division of Ser. No. US
       1979-71068, filed on 6 Aug 1979, now patented, Pat. No. US 4296130
DT
       Utility
FS
       Granted
LN.CNT 1465
INCL
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              514/711.000
NCL
       NCLM:
       NCLS:
              424/439.000
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IC
       ICM: A61K031-10
EXF- 51-4/-711;-424/439-
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21 ANSWER 5 OF 6 USPATFULL
       89:74008 USPATFULL
ΑN
       Dietary products and uses comprising methylsulfonylmethane
TI
       Herschler, Robert J., 3080 NW. 8th Ave., Camas, WA, United States
IN
PΙ
       US 4863748
                               19890905
ΑI
       US 1986-878948
                               19860626 (6)
       Division of Ser. No. US 1985-727989, filed on 29 Apr 1985, now patented,
RLI
       Pat. No. US 4616039 And a continuation-in-part of Ser. No. US
       1984-601771, filed on 17 Apr 1984, now patented, Pat. No. US 4559329 And
       a continuation-in-part of Ser. No. US 1984-584354, filed on 28 Feb 1984,
       now patented, Pat. No. US 4568547 And a continuation-in-part of Ser. No.
       US 1982-418110, filed on 14 Sep 1982, now patented, Pat. No. US 4514421
       And a continuation-in-part of Ser. No. US 1981-277592, filed on 26 Jun
       1981, now patented, Pat. No. US 4477469 which is a division of Ser. No.
       US 1979-71068, filed on 6 Aug 1979, now patented, Pat. No. US 4296130
DT
       Utility
       Granted
FS
LN.CNT 1494
INCL
       INCLM: 426/072.000
       INCLS: 426/074.000; 426/520.000; 426/580.000; 426/623.000; 426/630.000;
              426/636.000; 426/646.000; 426/648.000; 426/805.000; 426/807.000;
              514/711.000
NCL
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              426/072.000
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       NCLS:
              426/636.000; 426/646.000; 426/648.000; 426/805.000; 426/807.000;
              514/711.000
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IC
       ICM: A23K001-00
       ICS: A23L001-30
       426/74; 426/2; 426/72; 426/319; 426/535; 426/623; 426/630; 426/580;
EXF
       426/560; 426/520; 426/636; 426/523; 426/807; 426/646; 426/648; 426/805;
       514/588; 514/711; 514/708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
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L21 ANSWER 6 OF

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11 FILES SEARCHED...
L9
    690 (CORN STEEP LIQUOR OR DISTILLERS SOLUBLES OR YEAST PASTE OR
              WHEY OR MOLASSES) AND L1
=> s 19 and (phosphoric acid )
   8 FILES SEARCHED...
   9 FILES SEARCHED...
L10
          161 L9 AND (PHOSPHORIC ACID )
=> s (aluminum oxide or calcium carbonate or magnesium oxide) and 110
   7 FILES SEARCHED...
   9 FILES SEARCHED...
          86 (ALUMINUM OXIDE OR CALCIUM CARBONATE OR MAGNESIUM OXIDE) AND
L11
      - ---- - - L-1-0---- -
                       => s 111 and 17
            3 L11 AND L7
=> s 110 and 17
            3 L10 AND L7
=> s 19 and 17
           3 L9 AND L7
L14
=> s l11 and ketosis
L15
            0 L11 AND KETOSIS
=> s lll and milk fever
            3 L11 AND MILK FEVER
=> s lll and urinary calculi
            3 L11 AND URINARY CALCULI
=> s 110 and urinary calculi
L18
            3 L10 AND URINARY CALCULI
=> s 110 and milk fever
            3 L10 AND MILK FEVER
L19
=> s 19 and milk fever
L20
            3 L9 AND MILK FEVER
=> s 19 and calculi
            6 L9 AND CALCULI
L21
=> d 1-6
L21 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS
    2002:555965 CAPLUS
AN
DN
    137:108652
ΤI
    Phosphorus-containing coating materials for flowable
    cottonseed
ΙN
    Summer, Paul; Yamamoto, Koryu
PA
    Ajinomoto U.S.A., Inc., USA
    U.S. Pat. Appl. Publ., 6 pp.
SO
    CODEN: USXXCO
DT
    Patent
LA
    English
FAN.CNT 1
                                      APPLICATION NO. DATE
    PATENT NO.
                   KIND DATE
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PΙ
    US 2002098226 A1 20020725
                                       US 2001-768623 20010125
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9 FILES SEARCHED...
           0 SEED COATING AND L4
L6
=> s fermentation solubles and 14
           20 FERMENTATION SOLUBLES AND L4
=> s fermentation solubles and 11
       4 FERMENTATION SOLUBLES AND L1
=> d 1-4
    ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS
1.8
    2002:555965 CAPLUS
AN
DN - 137:108652 ----
    Phosphorus-containing coating materials for flowable
    cottonseed
    Summer, Paul; Yamamoto, Koryu
ΙN
    Ajinomoto U.S.A., Inc., USA
PA
    U.S. Pat. Appl. Publ., 6 pp.
SO
    CODEN: USXXCO
DT
    Patent
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    English
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    PATENT NO.
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    US 2002098226 A1
                           20020725
PΙ
    ANSWER 2 OF 4 USPATFULL
rs
       2002:185317 USPATFULL
AN
       Flowable cottonseed and method for its preparation
ΤI
       Summer, Paul, Oskaloosa, IA, UNITED STATES
ΙN
       Yamamoto, Koryu, Ottumwa, IA, UNITED STATES
      Ajinomoto U.S.A., Inc., New York, NY, UNITED STATES, 10020 (U.S.
PA
       corporation)
                              20020725
PΙ
      US 2002098226
                         Α1
      US 2001-768623
                        A1 20010125 (9)
ΑI
ΤО
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      APPLICATION
LN.CNT 499
INCL
      INCLM: 424/438.000
      NCLM: 424/438.000
NCL
       [7]
       ICM: A23K001-18
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L8
      ANSWER 3 OF 4 EUROPATFULL COPYRIGHT 2002 WILA
GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE
       550493 EUROPATFULL ED 20010720 EW 199532 FS PS STA B
AN
       ANTHELMINTIC AND ANTICOCCIDAL 3-CARBAMOYL-4-HYDROXYCOUMARINS, METHOD OF
TIEN
       USE AND COMPOSITIONS.
       ANTHELMINTISCHE UND COCCIDIZIDE 3-CARBAMOYL-4-HYDROXYCUMARINE, IHRE
TIDE
       VERWENDUNG UND ZUSAMMENSETZUNGEN.
       3-CARBAMOYL-4-HYDROXYCOUMARINES ANTHELMINTIQUES ET ANTICOCCIDIENNES,
TIFR
      MODE D'EMPLOI ET COMPOSITIONS.
       CLOTHIER, Michael, F., 5427 East Q Avenue, Kalamazoo, MI 49001, US;
IN
       LEE, Byung, Hyun, 7695 South 12th Street, Kalamazoo, MI 49002, US
       THE UPJOHN COMPANY, 301 Henrietta Street, Kalamazoo, Michigan 49001, US
PA
       Wila-EPS-1995-H32-T1
SO
       R AT; R BE; R CH; R DE; R DK; R ES; R FR; R GB; R GR; R IT; R LI; R LU;
DS
       R NL; R SE
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PIT	EPB1 EUROPAEISCHE PATENTSCHRIFT (1	Internationale Anmeldung)
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OD	19930714	
ΑI	EP 1991-916189 19910924	' 17
PRAI	US 1990-589934 19900928	1 /
RLI	WO 91-US6750 910924 INTAKZ	\
	WO 9206083 920416 INTPNR	U
REP	EP 38427 A EP 241834	A
	DE 2643428 A DE 2643476	A
	DE 1214696 B US 3991204	A
REN	CHIMIE THERAPEUTIQUE, vol. 2, no. 6,	November 1967, (Paris, FR), L.
	FONTAINE et al.: "Etude experimental	Le des proprietes choleretiques de
	coumarines, indane diones et acyl ir	
	anticoagulants oraux", pages 430-440	), see table 7, compound 41 (cited in
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	page 8532, abstract no. 90676k, (Col	Lumbus, Ohio, US), & JP,A,42004667
	(TANABE SEIYAKU) 25 February 1967, s	see abstract (cited in the
	application)	
IC	ICM A61K031-35	
	ICS C07D311-46 C07D311-54 C	CO7D405-12 CO7D417-12 ·
	C07D417-14 C07F009-655	

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4 = 8000 Cotton reed (Court coating)

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12 FILES SEARCHED...
            3 CONDENSED GLUTAMIC ACID FERMENTATION SOLUBLES
L2
=> d 1-3
    ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
L2
     2002:555965 CAPLUS
AN
     137:108652
DN
    Phosphorus-containing coating materials for flowable cottonseed
TI
     Summer, Paul; Yamamoto, Koryu
IN
     Ajinomoto U.S.A., Inc., USA
PA
     U.S. Pat. Appl. Publ., 6 pp.
SO
     CODEN: USXXCO
DT Patent
     English
T.A
FAN.CNT 1
                                          APPLICATION NO. DATE
                     KIND DATE
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                                         US 2001-768623 20010125
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     US 2002098226
                      Al
PΙ
     ANSWER 2 OF 3 USPATFULL
L2
       2002:185317 USPATFULL
AN
       Flowable cottonseed and method for its preparation
TΙ
       Summer, Paul, Oskaloosa, IA, UNITED STATES
IN
       Yamamoto, Koryu, Ottumwa, IA, UNITED STATES
       Ajinomoto U.S.A., Inc., New York, NY, UNITED STATES, 10020 (U.S.
PA
       corporation)
                               20020725
       US 2002098226
                          Al
PΙ
                               20010125 (9)
       US 2001-768623
                        A1
ΑI
       Utility
DΤ
       APPLICATION
 FS
 LN.CNT 499
       INCLM: 424/438.000
 INCL
       NCLM: 424/438.000
 NCL
        [7]
 IC
        ICM: A23K001-18
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 3 OF 3 IFIPAT COPYRIGHT 2002 IFI
 L2
      10154585 IFIPAT; IFIUDB; IFICDB
      FLOWABLE COTTONSEED AND METHOD FOR ITS PREPARATION
       Summer Paul; Yamamoto Koryu
 IN
       Ajinomoto U S A Inc
 PΑ
       US 2002098226 A1 20020725
 PΙ
                          20010125
       US 2001-768623
 ΑI
                          20020725
       US 2002098226
 FI
       Utility; Patent Application - First Publication
 DT
       CHEMICAL
 FS
       APPLICATION
 FS
 CLMN 57
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